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A LONDON SCHOOL CLINIC.*

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At the Second International Congress in School Hygiene, Dr. Cronin gave an optical demonstration of the benefits attained by the children of New York from medical treatment at school. His demonstration and paper convinced all the sensible people in the audience, of which I was one, of the necessity of giving children in England the like opportunities for physical improvement.

Shortly after the Congress a system of medical inspection of schools was established for Great Britain; a number of persons were, I think, satisfied with this recognition of medical work in the educational field. But if I may judge from the impressions gathered from conversation, and from meetings addressed in many parts of the kingdom, the teachers of all grades and others officially connected with education, such as managers of schools and members of care committees, were profoundly dissatisfied that the doctor's work was limited to inspection. The complaint constantly heard was—"What is the use of telling us how many children have bad teeth or bad eyes or adenoids? We have known that for a long time. If

* A paper presented to the Third International Congress on School Hygiene, Paris, August, 1910 (revised).

you can't remove these ills you doctors will only be a nuisance in the class-rooms."

Now, so far as the future possible prevention of many of these troubles among school-children is concerned, this impatience is not quite justified. The doctor's knowledge, when he has attained it and when it has been made actual, will be of much use in preventing the recurrence of such physical defects as are due to faulty methods in education.

Medical inspection is really a form of preventive treatment; it is prophylactic in a sensible way—I say sensible because some medical men, in their zeal to prevent disease, propose such rigid armour-proof laws for healthy living as to make illness comparatively a joy.

Medical inspection boldly understood may do well enough for the unborn children of the next generation or the one after, but it will not help those in whom we are after all most interested—the children going to school just now. For the sick amongst them we require a means the easiest and simplest discoverable to rid them of their troubles. As a sequel to inspection we must have medical treatment.

I cannot speak with any confidence as to the requirements of school children outside my own land, but for these I can say there does not exist any efficient means for the treatment of the diseases and defects recorded by medical inspection.

The existing agencies are—(1) the private doctor; (2) the voluntary hospital.

I must leave out of reach altogether the dispensary and club doctors; having been myself a club doctor, and having a pretty intimate acquaintance with the system, I leave it aside because it can only be regarded as a method of distributing pills and harmless medicines.

The private practitioner does not meet the case because in England—I shall put it quite bluntly—the people receive an insufficient wage to pay the doctor decently. These defects, which we are especially considering, require prolonged or skilled treatment, or both. Some diseases may require treatment for months; other diseases, such as ringworm, may require special instruments; defects of sight require accurate testing. If the doctor is willing to take very low fees because the patients are very poor he is doing so out of charity, to which, in particular cases, I have no objection, but if it were to be made into a system, then there is, it may be said, nothing so degrading and demoralising as organised charity.

The next agency for treatment is that of the voluntary hospitals,

which is, as a system of organised charity, open to the objection in principle to which I have already alluded.

There are other considerations which make this means difficult and expensive. In London and most of our big towns the hospitals are central—grouped round a small central area, whilst the schools and the children are every day extending centrifugally. A journey to the hospital means: (1) Much loss of time to the parent; (2) much loss of time for the child; (3) much loss of time for the teacher; (4) considerable expense.

For well-to-do persons it often seems most reprehensible when the mother says she has no time to take her child to the hospital. But consider what it means: the mother of a working-class child, even if she doesn't go out to work herself, is a *working woman*; she has no servants and nurses to look after the other children in her absence, to cook the meals and do the housework, she doesn't send the washing to the laundry, so that it is often most difficult for her to find a day which she can give up to taking her one child—she keeps putting it off, expecting next week that she will be less busy, or that her mother or sister will come and look after the house.

It means loss of time for the child and the school; I have known children wait from nine in the morning till three in the afternoon to see the doctor, even when sent up in charge of a nurse who knew her way about. In the case of testing for glasses this may not be very intolerable, as it means only one or two visits, but if the complaint is something more chronic the child may go on every week or fortnight for some months. Moreover, in many cases the hospital doctor has no control over the carrying out of treatment; he will prescribe a lotion for a case of discharging ears, but he cannot see to it that the syringing is carried out regularly and efficiently.

There is a further serious objection—these cases are not welcomed at the hospital. There are too many of them, they are not exciting. The hospital physician naturally wants, in return for his gratuitous attendance, a fair sprinkling of novelties that will awaken his curiosity.

In proof that these agencies have not been of any avail I can cite you the Bradford experience, where Dr. Crowley stated that, despite medical inspection existing for fifteen years, the majority of children remained untreated.

It was by way of bringing out a closer connection between medical inspection and its treatment in London that Miss McMillan started a school clinic.

As an outcome of my own experience in connection with such

a clinic, when we received all the children sent to us, I find that certain classes of cases are unsuitable for such treatment.

We were able to do little for the very delicate children, for those suffering from severe anæmia, from enlarged glands, chorea, pulmonary tuberculosis and heart disease. Such cases need open-air treatment, careful feeding, and a suitable course of instruction, physical and mental. I will not say that many did not benefit: I think they did. We were able to recommend many for special feeding and cod-liver oil; two or three we did manage to send away, through the kindness of friends, to convalescent homes or other places; we were able to warn the teachers and to recommend afternoon rest for many. But all this obviously does not require school clinics; all this is what Dr. Kerr and others understand by medical inspection. The cases for which clinic treatment is especially adaptable are:

Eye defects, external or internal, ear discharges, skin diseases, including ringworm, adenoids, enlarged tonsils, and other causes of mouth-breathing, dental diseases, slight curvatures, and similar deformities.

The clinic at Poplar was in one way distinct from any other so far established in England, inasmuch as it was directly connected with a school—in the school itself. The clinic at Bradford represents one form of clinic which one may call the centralised—the children coming from all the schools to be treated at the one centre. At Poplar our clinic room was the schoolroom of the headmistress of the infants' schools, and was intended for the treatment of the children attending the Devizes Road School. Classification is vexation, I admit, and inasmuch as at the Poplar clinic we treated, later on, children from the neighbouring schools, the clinic could not be said to be the exactly opposite type to Bradford. In London, I think, it will be found best to have several local clinics receiving the children of adjacent schools. (It is with such a clinic I am connected at Deptford.)

The history of the Bow clinic is brief and not inglorious. The moving spirit was Miss Margaret McMillan, whose pioneer work in education, especially on the physical side, has never received fitting acknowledgment. The next generation of Britons will, we hope, reward the genius of this twentieth century educationist. The medium was Mr. Joseph Fels, through whose generosity the clinic was started. The Committee for promoting the physical welfare of children undertook all the clerical work of organisation, and Miss Grant, the headmistress of the infant school, gave untiring assist-

ance. The London County Council showed its interest by helping us in several ways.

Miss Grant gave up her private room for the clinic, which the London County Council rented to the Committee at one shilling a year. By arrangement with the London County Council the medical officers of the clinic were not to treat any children who had not previously been medically inspected by one of the Council's medical officers; nor to carry out any operations on the school premises. We have to thank Dr. Kerr and Mr. Tyrrell, who was the medical inspector, for giving us every possible assistance.

After Mr. Tyrrell had notified the names of children requiring treatment the following circular was sent round to the parents:

LONDON COUNTY COUNCIL.

DEVON ROAD, L.C.C. SCHOOL,
BOW AND BROMLEY.

The London County Council has received an offer from the Sub-committee formed by the Committee for the Promotion of the Physical Welfare of School Children to provide medical examination and treatment for children attending elementary schools who may require the same, free of cost to their parents, at a room in the above-named school, which has been leased to the Sub-committee, and fitted up by them for the medical examination and treatment of children.

It is the opinion of the Council's medical officer that it would be in the interests of the health of your son/daughter that he/she should receive medical advice and treatment. If, therefore, you desire your son/daughter to receive such advice and treatment at the hands of the Sub-committee in question, or persons engaged by them for the purpose, will you fill up and return to me the enclosed form, when the necessary arrangements will be made with the Sub-committee with a view to his/her receiving such advice and treatment.

You will understand that the Sub-committee in question is in no way connected with the Council, and that in forwarding your son's/daughter's name to the Sub-committee and providing facilities for his/her medical examination and treatment by the Sub-committee, the Council accepts no responsibility in the matter.

The form referred to was signed by the parents, and we were then ready to treat the children.

I ought to mention that we received no refusals for treatment.

The mothers were asked to attend if possible at a given hour, and in most cases they came with the children the first time, a large number coming subsequently also. Cards were made out for the children of each class or set of classes notifying to the teacher the hour when the children should come up—2.15, 2.30, and so on. The infants were first seen, then the girls, and finally, the boys.

The medical staff consisted of a nurse, Dr. Tribe, and myself. Dr. Tribe attended on Thursdays; my day was Tuesday. The nurse for whose services we were indebted to the Fern Street

Settlement was a most essential, or the most essential, part of the staff. She attended on the days when the clinic was opened, and received from the doctors directions for the treatment of each child.

The treatment was carried out during the mornings at school, when the ears were syringed, eye-drops instilled, and so on, and after five o'clock at the Settlement, where many of the children came for a second application of treatment, or for the first time. At the clinic eyes were tested, ears and throats received any special applications that might be required. All cases requiring operations had to be sent to the hospitals. By interviewing the mothers ourselves or through the nurse we succeeded in getting most of the cases submitted to operation with fair promptitude. Being in direct touch with the parents, seeing the children week after week, we were able to give suggestions about food, clothing, play, and air, to repeat our injunctions and see that they were really carried out.

I think I can claim it as a success that the parents were anxious for advice, that they followed it out, that they often sent their other children, whom we could not, of course, see until the Council's medical officer had passed them. Through the nurse and teachers we got most useful hints about the children; we find out that Bessie was not wearing her glasses, and I may say so eager were the children to come to our department that we held over them as a punishment the threat not to see them next week if they did not follow our directions.

The work entailed the minimum interference with the school; no child was absent longer than twenty minutes from his class after the first examination, and usually much less. Such difficulties as arose were due chiefly to the experimental nature of our work. All are welcome; all seats free had perforce to be our rule. It was gradually that we found out that cases such as have been mentioned did not receive much benefit from the clinic. It must be remembered that the area was a very poor one, nearly all casual workers, and the winter of 1909 a very bad one, with unemployment at its maximum; a large number of the fathers out of work, and a large number of mothers out trying to get jobs, so that our proportion of ill-fed children was high, despite the milk, etc., they had received for many years, through Miss Grant's School Settlement, without which aid the conditions would have been certainly much worse.

Owing to the conditions of our employment we had sometimes an insufficient number of new cases, for we were bound to wait till the medical inspector could see the school.

The clinic was opened on December the 8th, and partially closed on June the 7th, when we started a clinic at Deptford.

The following table gives the details of the cases treated:

Illness.	No. treated.	No. cured or improved.
Discharging ears	49	39
Adenoids	34	27
Nasal discharge	3	3
Eye diseases (including spectacles)	84	75
Skin diseases	69	66
Anæmias	58	32
Tuberculosis	13	6
Other diseases	28	16
	338	264

Out of 338 cases, 264 have improved or been cured, and in most cases it was one of skin disease, eye disease, ears, etc. Among the remaining 74 there are to be reckoned the children who removed from the school during the treatment, a few incurable cases, such as complete atrophy of an eye, some of the severe anæmias including, probably, cases of pulmonary tuberculosis, seven cases of glandular and pulmonary tuberculosis, and the cases of heart diseases. Among the other diseases the cases that improved or were cured are those of chronic intestinal disease, the cases of post-influenzal debility and so on. We were most successful in treating skin diseases and eye diseases; the ears took a long time, but when we were able to get them syringed twice a day and with the aid of general tonic treatment the majority were eventually cured. Some of the children were sent to hospital for operation.

The anæmia cases we tested by their increase in weight and improvement in colour and activity.

The children requiring operation were sent with cards and in charge of the nurse when possible to the hospital.

Among the cases operated upon was one of congenital cataract in both eyes; one eye has improved—I do not yet know the result in the other eye.

As an instance of the possibilities of a school clinic let me quote the case of one child: Ethel B—, aged 8 years, suffering from croupous conjunctivitis, for which she had been attending the hospital for eleven months receiving lotions and ointment. This child was seen at Deptford. The nurse, treating the child daily with a solution

of silver nitrate (10 gr. to the ounce), cured her in a week. I have in mind another charming little girl, aged 5 years, who had been suffering for a long time with discharge from the ears; her external ears and face were covered with patches of eczema set up by the discharge. Her teacher described the child as sullen. She had had intermittent syringing for a long time without effect and the mother had given it up in despair. Assiduous syringing by nurse was carried on for ten weeks, once a week chromic acid was applied, and then glycerine of tannic acid. A complete cure was the result. There is no discharge, no eczema, and no sullenness.

All the teachers gave us gratifying accounts of improvements in the children's habits, manners, and school work who had been treated.

Nor was the work without general effect upon the whole school. The first batches of cases we had, whatever else was the matter with them, were certain to have verminous heads. Through nurse and mother we got rid of this trouble; now the school is a clean one; there was not a child with a verminous head last June in that school.

The other children had taken the lesson home and the mothers had felt put upon their mettle, without any fuss, imprisonment, or compulsion, but simply through the offer of free treatment to see to it that their children had neither vermin nor nits in their heads.

This is the way, and in my opinion the only way, in which parents will awaken to their responsibilities. Threaten them with all kinds of compulsion, with fines, etc., and the normal human being will rebel at such coercion; offer them free treatment and facilities and you will soon find no loss of the sense of responsibility.

This is one among other reasons why I urge that treatment shall be free and easy. After several years of such facilities having been offered it will be time to talk of prosecuting parents who will not have their children operated upon for adenoids or will not let them wear spectacles. It is intolerable, I consider, to commence with such threats, especially when, as at present, it is extremely difficult and burdensome for treatment to be obtained.

Personally, I think it would be more disastrous were medical men to act as policemen and detectives than for them to allow children to grow up with bad sight and bad hearing.

At the recent meeting of the British Medical Association in London I was greatly astonished at hearing several doctors announce their intention to prosecute parents who did not agree with the doctor's

diagnosis or treatment; for instance, if the parents refused to have their children operated upon for adenoids or who did not want their children to wear spectacles. Certainly no doctor would think of prosecuting well-to-do parents who refused to follow his advice; the innovation seems very dangerous. For an old-fashioned practitioner like myself the term "parental cruelty" must not be stretched beyond common-sense and its traditional use among men. The whole question of the treatment of defects like those of the teeth or of vision is one of such recent growth that one must wait until knowledge, now the privilege of a few, is the heritage of the many.

At the Deptford clinic, which has just been opened by Miss McMillan, after an arduous and self-sacrificing struggle, we have been able to profit by past experience. Here we shall be able to carry out dental treatment sanctioned by the County Council; Dr. Tribe is treating diseases of the skin and nose and mouth, while I am attending to eye diseases. The services of a most excellent nurse have enabled us to do the work. Miss Riddell is carrying out remedial drill, post-operative cases, spinal diseases, etc. We have in the Deptford schools many cases of curvature, of cramped limbs and bad feet that require individual care. It is in these directions that the next work of the school clinic lies; another outcome of the clinic will be in dealing with infectious diseases. Dr. Williams, of Bradford, has shown how the control of notifiable infectious diseases in schools through the clinic may be effected. Out of 365 children examined 94 proved to be in an infectious condition and unfit for school attendance.

In these several ways the control of infection, the cure of physical defects, whether of speech or limbs, of vision or hearing, the school clinic will serve the interests of the children in a manner which I believe to be otherwise impossible.

Note on Deptford school clinic.—During the first six months, June to December, 1910, the total number of cases treated was 1049, as follows:

Defects of vision	273
Eye disease	167
Ear „	112
Throat „	208
Nose „	20
Skin „	104
Spine	12
Anæmic and debility	45
Some acute diseases	14

202 INHERITED SYPHILIS AND BLUE SCLEROTICS.

Injuries	17
Various	77
Total	1049
Cured, sent to hospital, or no treatment necessary	795
Still under treatment	254
Total	1049

This does not include the dental cases ; the clinic was opened for dental treatment in November. Miss McMillan makes the following estimate of the cost :

Nurse	115
Doctors (2½ days per week)	100
Dentist (whole time)	300
Teacher	50
Caretaker	40
	£605
Rates and taxes	12
Drugs	20
Sundries	20
	£657

Allowing £43 for rental, the total expense would be £700. Over 2000 children can be treated by the medical staff yearly, working two half-days a week, and at least 3000 children by the dentist working full time. With a full-time medical staff the cost per child would be, of course, less than it now is.

INHERITED SYPHILIS AND BLUE SCLEROTICS.*

By J. D. ROLLESTON, M.D.,

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A MALE infant, aged 5 months, an only child, was admitted to the Grove Hospital for nasal diphtheria on November the 15th, 1910. The father had contracted syphilis about six years previously, and had undergone only a few months' treatment. Six months after

* Case shown at the Royal Society of Medicine (Section for the Study of Disease in Children) on March the 24th, 1911.

marriage and one year before the baby's birth the mother developed "a poisoned lip," probably a hard chancre, of which the scar is still visible in the centre of the lower lip. Its real nature does not seem to have been recognised, as she received only local treatment on seeking advice at a hospital.

When three weeks old the baby lost all power in his left arm, but recovered the use of the limb in the course of a month without specific treatment, and when six weeks old had "thrush at both ends," which was probably mucous tubercles in the mouth and round the anus.

Condition on admission.—Atrophic, fair-haired infant, weight 8 lb. 7 oz., constantly crying. Marked prominence of scalp veins, bulging forehead, umbilical and right inguinal hernia. Crusts in right nostril from which diphtheria bacilli were cultivated. No eruption. Spleen and liver not enlarged. Heart normal.

Both sclerotics show a uniform pale blue coloration; irides grey, embryontoxon at the margin of each cornea.

During the child's stay in hospital the blue coloration of the sclerotics was more obvious on some days than on others.

The mother, aged 27 years, a woman of fair complexion, presented an almost identical condition of the sclerotics, but the coloration was somewhat deeper, more nearly approaching a leaden hue.

An arcus senilis was present in each eye. Beyond occasional smarting on exposure to wind and lacrymation following prolonged accommodation, her eyes had not caused her any trouble. She stated that her sister, a fair-haired girl, aged 16 years, presented the same condition, as did also their grandmother, now dead. Their two brothers, aged 37 and 22 years respectively, were not affected.

The child's nasal diphtheria cleared up under 4000 units of antitoxin, but diphtheria bacilli persisted in the nose until February, 1911. Four days after admission periostitis of the upper end of the left ulna developed, but subsided in a few days after administration of hydrarg. c. creta gr. $\frac{1}{2}$ *bis die*. Beyond some erosions round the anus and paronychia of the right ring finger nothing further of note occurred until January the 12th, 1911, when the left arm was found to present the flail-like attitude characteristic of Parrot's syphilitic pseudo-paralysis. On palpation the arm was found to be excessively tender, and definite crepitus was felt at the junction of the upper and middle third of the humerus. The temperature was 101° F. for two days, and then became normal.

The limb was put up for a fortnight in a cardboard splint, and the mercury, which two days before the fracture had been reduced

to gr. $\frac{1}{4}$ *bis die* owing to loose stools, was increased on January the 21st to gr. $\frac{1}{2}$ *b.d.* and on February the 4th to gr. $\frac{1}{2}$ *ter die*. On January the 28th when the splint was removed there was good union, and well-marked callus was felt. Active and passive movements were free. Subsequent recovery was uneventful, and the child was discharged in good health on March the 9th, 1911.

The principal features of interest in the case are the extra-genital infection of the mother, the spontaneous fracture of the humerus in the child, and the condition of blue sclerotics in three generations. Although no Wassermann's reaction was performed, the history of the case and the position of the scar made it practically certain that the lesion on the lip had been a chancre.

Spontaneous fractures, or, to use Broca's more accurate term, "pathological fractures," are comparatively uncommon in syphilis, especially fractures of the shaft as distinct from separation of the epiphyses, and still more exceptional is it for the fracture to be limited to a single bone instead of the lesions being multiple, as in most of the recorded cases. This was probably due to the adoption of specific treatment, as shortly after admission, before mercury had been given, the child developed periostitis of the ulna, thus indicating that the osseous system showed a special tendency to be involved.

The symptom of persistent crying, to which attention has recently been drawn by Comby and Sisto as a phenomenon of inherited syphilis, was probably due to pains in the bones.

The occurrence of the fracture during mercurial treatment was probably due to the doses being too small, as rapid recovery ensued on increase of the dose.

The case is illustrative of the favourable course of pathological fractures in inherited syphilis, provided suitable treatment is adopted. All authorities now hold this view, but Parrot, who first described syphilitic pseudo-paralysis, regarded it as a very unfavourable sign as all his cases died.

If the history could be trusted the same arm had already been affected when the child was three weeks old, and recovery had taken place without specific treatment. A similar case of spontaneous recovery from syphilitic pseudo-paralysis has been recorded by Cadet de Gassicourt, and Gouez has collected five other cases in which improvement occurred before mercury was administered.

It should be noted that the humerus is the most frequent site of pathological fractures in syphilis, as it was affected in twenty-two out of sixty-four such cases collected by Frangenheim.

The condition of blue sclerotics as a congenital disease was first described by von Ammon in 1841 in the following terms : "Congenital diseases of the sclerotic are rare. . . . Of importance is a peculiar whitish-blue coloration of this membrane occasionally met with, when the whole development of the eye is retarded. The sclerotic in such cases appears thin and almost transparent. I have seen it also in congenital hydrophthalmos. . . . Similar thinness occurs in patients suffering from congenital heart disease. In that case the sclerotic is dark blue, this being due partly to the thin condition of the membrane and partly to an accumulation of venous blood and a large mass of pigment in the eye."

Von Ammon's description is accompanied by two illustrations (Tab. xv, figs. 2 and 3), the first representing the blue coloration in a case of congenital hydrophthalmos, and the second in a case of congenital morbus cordis.

After von Ammon little notice seems to have been taken of the anomaly until 1903, when Dr. Leslie Buchanan, of Glasgow, described a case in a girl, aged 9 years, whose left eye he examined after excision for an injury. He found that the cornea and sclerotic were unusually thin, the cornea being three fifths and the sclerotic one third of its normal thickness. Histological examination showed that the fibres of the cornea and sclerotic were of about normal size but unusually few in number. The anterior elastic lamina was entirely absent.

In a paper entitled "A Congenital Anomaly of the Sclera : Pseudo-coloboma," to which Mr. Sydney Stephenson has kindly drawn my attention, Dr. Percival J. Hay, of Sheffield, in 1907, described a condition resembling that under discussion, but differing from it in that the thinning of the sclerotics, instead of being uniform and symmetrical, was in the right eye represented by a triangular area on either side of the cornea, and on the left confined to an area on the temporal side only. The case occurred in a still-born child, the subject of many other congenital deformities. There was no family history. It was not till 1908 that the hereditary transmission of blue sclerotics was first mentioned. In that year A. Peters, of Rostock, recorded cases in four generations. Four of his patients showed a typical embryontoxon. Peters regarded the condition as due to an abnormally thin or abnormally transparent sclerotic. In 1910 Mr. Sydney Stephenson described the condition affecting twenty-one out of thirty-two members belonging to four generations of one family. In his cases, as in mine, the inheritance was through the females, and the complexion in general was fair.

In two cases the presence of an arcus senilis or an embryontoxon was noted. Subsequent investigation enabled Mr. Bishop Harman to add another generation to this family, so that a total of fifty-five members was reached, of whom thirty-one showed the same congenital peculiarity with individual differences.

It did not occur to me that there was any connection between the pathological fracture of the child's humerus and its blue sclerotics until, while looking up the literature on abnormalities of the sclerotic in the Surgeon-General's Index Catalogue I came across a paper by Dr. Eddowes, entitled "Dark Sclerotics and Fragilitas Ossium," where he described some cases running in families in which the two conditions were associated. Dr. Eddowes suggested that the transparency of the sclerotics indicated a want of quantity or quality in the fibrous tissue forming the framework of the various organs of the body, which therefore accounted for the want of spring and toughness in the bones. Dr. Eddowes has kindly informed me that he never even suspected inherited syphilis in his cases.

Possibly the deficiency of fibrous tissue in the present case as manifested by the blue coloration of the sclerotics may have been a contributing factor together with syphilis in the production of the fracture. There was, however, no history of fragilitas ossium in any other member of the family.

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ACUTE PYELITIS DUE TO *BACILLUS COLI COMMUNIS*
AS A COMPLICATION OF CONGENITAL HYDRO-
NEPHROSIS.

By FREDERICK LANGMEAD, M.D., M.R.C.P.,

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DR. JOHN THOMSON,* in his recent paper on acute pyelitis due to *Bacillus coli* as it occurs in infancy, describes twenty-five cases which he has met with in practice during the last fifteen years. He lays great stress on the absence of local signs in this condition, and, in fact, in no case in his series was there more to be found by abdominal examination than some ill-defined tenderness and resistance. Since Dr. Thomson's paper is the most important contribution to the study of this disease in infants under two years of age, perhaps it may be worth while to put on record the following case of an infant in whom the local signs were a very prominent feature.

I first saw the patient, a boy, aged 6 months, with Dr. Morrish, of Streatham, on February the 7th of this year. The history was as follows: Until the age of four months, when weaning was started, he had been quite well, except for troublesome constipation. Afterwards he had been improperly fed, groats having been given in addition to milk and barley-water, and occasional vomiting and abdominal pain and distension ensued, though not sufficient to make the baby seriously ill or cause perceptible wasting. He was a strong, healthy baby. Two days before, serious vomiting had started and had continued.

When examined he was seen to be a well-nourished infant, but showing all the appearance of severe infective vomiting.

The eyes and fontanelle were somewhat sunken and the skin inelastic. There had been no diarrhoea, nor had blood or mucus been passed by the bowel. The temperature was 100° F. The abdomen could be easily palpated, but no tumour was felt on this occasion.

The stomach was washed out, and small doses of calomel, followed by a rhubarb and soda mixture, administered. After the lavage the vomiting entirely ceased. The bowels were constipated at first, but after the calomel had been used, large, pale, semi-digested motions were passed.

* John Thomson, 'Quart. Journ. of Med.,' 1910, iii, p. 251.

Urine was voided freely. Three days later, however, the baby was more febrile, the temperature ranging from 102° to 103° F., and next day (February the 11th) he became increasingly drowsy.

On February the 12th I saw him again because of the drowsiness. Now, he had lost the appearance of collapse, but was very restless and apathetic, and obviously poisoned. Abdominal examination revealed rigidity, tenderness, indefinite fulness and dullness in the right iliac region, extending back to the loin. To examine this region more easily in order to arrive at a diagnosis an anæsthetic was given, and when the abdominal wall relaxed a tumour could be felt. It reached above almost to the level of the umbilicus and forward beyond the linea alba, whilst it could be traced into the loin behind and to Poupart's ligament below. The greater part of the tumour was dull. Its rounded anterior and upper margins could be easily defined. By a finger in the rectum it could be felt bulging into the pelvis, and fluctuation could readily be obtained between this finger and the hand on the abdomen. As the temperature was 103° F. and the tumour was evidently a fluid one, the condition appeared to be a large intra-peritoneal abscess.

A few hours later Mr. Arthur Edmunds explored through an anterior abdominal excision. The tumour then proved to be a greatly dilated renal pelvis and ureter, the condition of the latter explaining the presence of the fluctuating protrusion felt by the rectum. As the baby was desperately ill it seemed advisable to postpone opening the renal pelvis for the present. A specimen of urine obtained by a catheter was found to be very turbid and foul, to contain a heavy deposit of pus, and to be teeming with organisms belonging to the *Bacillus coli communis* group. No casts were present. It was strongly acid. Two days later, the child having survived the operation, but being still very poisoned, lying with eyes open in a state of coma-vigil, the kidney was opened and drained by the retro-peritoneal route. Both the kidney and the ureter were still distended with turbid urine. A finger inserted into the kidney enabled the greatly dilated thick-walled calices of a congenital hydronephrosis to be felt.

The baby continued to become more and more unconscious—although he still passed water and drained freely—and died on February the 17th, twelve days after the onset of definite illness. After the first operation he had been treated medicinally with a combination of urotropine and alkalis.

This case teaches, firstly, that one cannot rely upon the absence of local signs as a means of diagnosis of *Bacillus coli communis*

infections of the renal pelvis in infants, for a very large fluctuant swelling was obvious; and secondly, that in any case of disease in infancy which is at all out of the common, a specimen of urine is essential, obtained by catheterisation if necessary.

A CASE OF STOKES-ADAMS' DISEASE IN A BOY, AGED 15 YEARS.

By ARTHUR J. CLEVELAND, M.D., M.R.C.P.,

Honorary Physician, Jenny Lind Hospital for Children, Norwich; Honorary Assistant Physician, Norfolk and Norwich Hospital.

THE patient was admitted into the Norfolk and Norwich Hospital under my care on August the 13th, 1910. He had always been delicate, but his health had been worse during the last four or five years after an illness which might have been typhoid fever. Four years ago he was in the Jenny Lind Hospital for Children, Norwich, for a "bad heart" and since that illness has suffered from "fainting attacks." For the five weeks previous to admission he had been in the Workhouse Infirmary for a bad heart.

Condition on admission.—He is undersized, weighing 4 st. 2 lb., but intelligent, although he gazes in front of him with drooped eyelids in a listless manner, which gives the impression that he is half-asleep or mentally deficient. His colour is good and he has no dyspnoea. His pupils react but little and sluggishly to light and accommodation, and when told to follow the movements of one's finger his eyeballs have apparently about half the normal range. His field of vision and discs are normal.

On admission his pulse-rate was 30 per minute, his temperature 95·4° F., his respirations 24, and he was rather collapsed. He was given a hypodermic injection of strychnine, and after getting warm in bed soon improved. Next morning his pulse-rate was 36, temperature 98·4° F., and respirations 24. There was nothing abnormal to be detected in his respiratory, alimentary, or nervous systems. His urine had a specific gravity of 1010, was acid, free from sugar, and contained a trace of albumin. There was no evidence of syphilis. The heart apex-beat was normal in position, and there was no increase of the superficial cardiac dulness. At the apex there was an occasional mid-diastolic murmur and the first and second sounds were short and sharp. He was kept in bed on fish diet, and

although his pulse-rate never rose above 36, he seemed to be improving until August the 29th. He then had an attack of faintness in the middle of the day, his temperature being 96° F., and his pulse-rate 30-40. On the morning of the 30th his pulse-rate was 16, the temperature 96° F., and respirations 20, but he was quite conscious and not distressed. The pulse-rate remained at 20 or less during the day.

On August the 31st he had several "fits" in which he lost consciousness for a few minutes and passed urine. In the course of an hour he had four of these attacks, on which the following note was made: "When the 'fit' starts the patient makes a slight groaning noise, becomes very pale and cold, loses consciousness, and appears to be dying. There are no convulsive movements, and he recovers without any paralysis. During the attack there is no apparent change in the pulse, but as he recovers this quickens and he becomes flushed. After recovering consciousness he seems unable to speak for some minutes. The attack lasts about three minutes." On one occasion the pulse-rate immediately after an attack was 120.

These attacks seemed to distress him very much and apparently caused pain, although he made no complaint of any definite pain. His breathing did not seem to be in any way disturbed by them and he never had any dyspnoea. On September the 1st he was very ill, the pulse often being very feeble and slow.

On one occasion the heart-beats counted with a stethoscope were 10 per minute, and once no heart-beat could be detected for thirty seconds. The veins of the neck were distended but showed no pulsation.

He continued in this condition until September the 2nd, when he died at 2 a.m.

At the post-mortem examination no valvular disease of the heart could be made out, although the edges of the mitral valve looked a trifle thicker than normal. There were several whitish patches in the endocardium of the left ventricle and similar ones in the aorta. The heart weighed 9½ oz., and the left ventricle was hypertrophied. No naked-eye lesion of the muscle could be detected. The other organs were normal in appearance. Microscopically the patches in the aorta were seen to be due to fatty degeneration, and those in the ventricular endocardium consisted mostly of fibrous tissue the result of inflammation. The heart-muscle was normal.

Erlanger's experiments have shown so clearly the nature of heart-block, and the phenomena of the curious disease first described so many years ago by that shrewd observer, Stokes, that it is

unnecessary to comment on the case of whose clinical history I have given a short account. I believe it is very rare to find this disease in one so young, and it is also unusual for the pulse-rate to fall as low as 10 per minute even in severe cases.

London and Provincial Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, March the 24th, 1911.

Dr. E. CAUTLEY, *President, in the Chair.*

Infantilism with Chronic Nephritis and Polyuria.—Dr. H. MORLEY FLETCHER.—Boy, aged 6 years, is said to have not grown since the end of his first year. He is said to have always passed a large amount of urine, and to have taken large quantities of fluid (at four months as much as 4 pints per diem). Breast-fed one month, afterwards cow's milk. No other illnesses. Has one sister aged 4 years, who is healthy. Mother had one miscarriage; she has phthisis.

The patient is very small, height 2 ft. 7 in., weight 21 lb. He is wearing clothes made for him when he was two years old. Intelligence very good. Teeth carious. Eyes natural. Heart and lungs normal. Abdomen large and somewhat distended, kidneys palpable (? enlarged). Blood-pressure, 75 mm. Hg. Double genu valgum. Testicles undescended. Passes from 40 oz. to 70 oz. of urine per diem; the average daily amount for the last three weeks was 59 oz. He drinks about $3\frac{1}{2}$ pints daily. Urine usually colourless, occasionally slightly opalescent; specific gravity 1005; reaction neutral; 0.16 per cent. albumin, granular casts occasionally present, no glucose, pentose, acetone, or diacetic acid. Much indican present. Cammidge reaction negative. Cryoscopic examination, -0.4°C . Blood examination, Wassermann's test negative.

He has had occasional rises of temperature, probably due to ear trouble. He has gained only 3 lb. in weight during three months' hospital treatment, but no increase in height. The stools have always been normal. Administration of thyroid extract has had no effect.

The case is regarded as one of infantilism, associated with, or due to, chronic renal disease, dating from intra-uterine existence.

Infantilism with Thyroid Inadequacy (Juvenile Myxœdema).—Dr. H. MORLEY FLETCHER.—The patient, a girl, aged 8 years, developed normally for the first two years. She walked and talked at the usual age. The labour was easy, and the mother in normal health at the birth of the

child. The seventh of nine pregnancies, all the children alive now, except the third. Has had measles and pertussis in her second year. Pale, puffy, serious, rather old-looking face. Abundant hair, scalp scurfy. Skin dry and rough. Is very quiet, but takes an interest in her surroundings. Mental processes slow. Has been under thyroid treatment for nearly three months, and has considerably improved; she is more lively, and the skin is less dry, but she has not grown. Weight, $24\frac{1}{2}$ lb. Height, 33 in.

The cases were discussed by the PRESIDENT.

Inherited Syphilis and "Blue Sclerotics."—Dr. J. D. ROLLESTON.—Male infant, only child, aged 9 months. Father infected five years before marriage; had only a few months' treatment. Six months after marriage, and one year before the baby's birth, the mother developed "a poisoned lip," probably a chancre, of which the scar is still visible, and had only local treatment. When three weeks old the baby lost all power in its left arm, but recovered use of limb in the course of a month without specific treatment. "Thrush at both ends" when six weeks old. When aged five months it was admitted to Grove Fever Hospital for nasal diphtheria. Condition on admission: Atrophic, fair-haired infant; weight, 8 lb. 7 oz.; constantly crying. Marked prominence of scalp veins; forehead prominent; umbilical and right inguinal hernia; crusts in right nostril; no eruption; spleen not enlarged; well-marked, uniform blue coloration of both sclerotics; irides grey; embryontoxon at margin of each cornea.

The mother, and mother's sister, both fair-haired, present the same condition. The maternal grandmother, now dead, is said to have been similarly affected. The mother's two brothers are not affected.

The nasal diphtheria cleared up under 4000 units of antitoxin, but K.L.B. persisted till the following February. November the 19th: Swelling and tenderness of upper end of left ulna; hydrarg. cum creta, $\frac{1}{2}$ gr. *b.d.* November the 23rd: Periostitis subsided; some erosions round anus. January the 9th: Paronychia of right ring-finger. January the 12th: Cries when left arm is touched, limb flail-like; temperature, 101° F.; stools loose. Hydrarg. cum creta reduced to $\frac{1}{4}$ gr. *b.d.*, and pulv. Doveri $\frac{1}{4}$ gr. added. Undiluted citrated milk ordered. January the 14th: Left upper arm swollen; crepitus felt at junction of upper and middle third of humerus; temperature, 101° F.; arm put up in cardboard splint. January the 16th: Temperature, normal. January the 21st: Hydrarg. cum creta increased to $\frac{1}{2}$ gr. *b.d.*, and subsequently to $\frac{1}{2}$ gr. *t.d.s.* on February the 4th. January the 28th: Splint removed; good union; well-marked callus felt; active and passive movements of arm free. February the 11th: Callus no longer felt. Subsequent recovery uneventful.

On its discharge on March the 9th, 1911, the child was in good health, weighing 13 lb. 10 oz. The persistent crying soon ceased after the exhibition of Hg.

Mr. SYDNEY STEPHENSON, Dr. PARKES WEBER, and Dr. F. W. HIGGS discussed the case.

Simple Atrophic Type of Myopathy.—Dr. F. E. BATTEN.—Boy, aged 6 years, is the eldest of four children, the others of whom are said to be healthy. He had pneumonia when one year and four months old, and is said to have had one fit a month later. He has never been able to walk, always weak, perfectly clean in habits, intelligent, and talks well. All movements of face and eyes are well performed. His arms and legs are

thin, there is general wasting without localised atrophy or hypertrophy. Almost all movements can be performed so long as no strength is required. There is no winging of the scapulæ, the grasp is fair, and the forearm muscles are relatively stronger than the proximal muscles, but this is accounted for by the less work they have to do. The boy can stand, but cannot walk without support. He can raise himself into a sitting position, but can only climb into an erect position with the aid of a chair, and when standing he has marked lordosis. The boy shows most marked hypotonia; he can be "folded up" so that the trunk lies parallel to the legs. His feet and hands can be dorso-flexed to an unusual angle. The knee-jerks are present. The plantar reflex is flexor. Sensation is perfect. Electrical examination shows a marked diminution to faradic stimulation, but no polar change.

The simple atrophic type of myopathy is characterised by smallness, lack of power and tone in all the muscles of the body without localised atrophy or hypertrophy of individual muscles or groups. This case illustrates these features well.

Progressive Spinal Muscular Atrophy of Infants (Werdnig-Hoffmann).—Dr. F. E. BATTEN.—Girl, aged 1 year and 9 months, the second of two children, the mother and father being healthy. The first child, a boy, died at the age of eight months of broncho-pneumonia. He was said to have been very loose in the limbs from the time of birth. Patient was born at the seventh month, and was delicate for four months. She was said to kick about a good deal up to six months old, and appeared fat and healthy. She was said to be able to sit up at seven months, but was not encouraged to do so. At seven months she was able to talk a few words. Since she was seven months old she has gradually got weaker and more helpless, and this weakness is said to have increased since October, 1910, and she cannot now lift the head off the pillow.

When seen in June, 1910, she was unable to sit up, had weakness of the back, and could make no attempt to stand. All the deep reflexes were absent. The Mongoloid appearance of the child was noticed. She was placed on thyroid, $\frac{1}{2}$ gr. twice a day, and improved, and is noted as "much improved" in October, 1910. The bowels had been constipated. She takes food well, and as she lies in bed appears quite healthy. The child is fairly nourished. She is happy and contented, says little words, and takes notice of all that goes on. She hears and sees well, and as far as is possible obeys commands. The palpebral fissure is small and oval, and this gives her the appearance described as "Mongoloid," but there is no obliquity of the eyebrows outward, the skin is quite soft, the head of normal size, and the tongue smooth, so that there is nothing to suggest the child is a Mongolian idiot, though the term "Mongoloid" is justified. The head measures $19\frac{1}{2}$ in. in circumference. The incisors, canines, and first molar teeth are all present. The movements of the eyes, tongue, jaw, and lips are normal. The optic discs are normal. There is nothing wrong with the heart, lungs, or abdominal viscera. The chest is long and narrow, and on inspiration the intercostal spaces sink in, and it is clear that respiration is carried on by the diaphragm alone, which acts vigorously. The abdominal muscles are weak, but not completely paralysed.

If the child is placed in a sitting position the head falls forward, backward, or sideways; the neck muscles being powerless, the back becomes bent, and there is no power in the trunk muscles, either to flex or straighten

the back. When placed flat on the bed, however, the spine is perfectly straight. The arms lie, as a rule, flexed at the side of the chest; the child can make little movements with the fingers, and can grasp objects feebly. She can just flex the elbow and pronate, but not supinate the hand. The forearms are more or less fixed in position of pronation. There is no power of movement in the shoulder muscles. The legs are almost powerless, there is practically no power of flexion of the hips or knees, but there is a little power in flexion and extension of the ankle and toes. The hamstrings are contracted so that the right leg cannot be fully extended. The limbs are thin, and the muscles are wasted, but this wasting is to a considerable extent covered up by the subcutaneous fat. The loss of tone in the muscles is very considerable, but the feet cannot be flexed over the shoulders, nor can the arms be crossed behind the child's back, positions which are possible when the hypotonia is marked in a child. Sensation to ordinary stimuli appears unimpaired all over the body. The knee-jerks, ankle-jerks, and all the deep reflexes are absent. The abdominal reflexes and plantar reflexes cannot be obtained. The sphincter ani is normal. The electric reaction shows complete loss of response to faradism in all the paralysed muscles, but the muscles of the hand respond normally. The child bears a very strong current without evincing any signs of pain. In short, the child has an almost complete flaccid paralysis of all the muscles of the neck, trunk, and limbs, the muscles of the face, eyes, and diaphragm alone remaining normal.

The cases were discussed by Dr. GUTHRIE and the PRESIDENT.

Syphilitic Osteitis of the Femur.—MR. P. MAYNARD HEATH.—Boy, aged 7 years. Twenty-two months ago he was struck on the left thigh by a large stone. He was not confined to bed by the accident, and remained well until three months ago, when the thigh began to swell. He was then noticed to limp in walking. There is a diffuse bony swelling of the left femur, involving the whole length of the shaft, but most marked at the junctions of its upper and middle thirds. The surface of the bone is smooth, and the muscles are not involved. No other bones are affected. The boy shows no other signs of congenital syphilis. He is the fourth child out of seven, of whom the two eldest died at twenty-four hours and three weeks respectively. The father had syphilis twenty years ago. He says he was treated with three mercurial pills daily for six months, and then with a solution of mercury for more than a year subsequently. The skiagraph shows diffuse osteitis of the whole shaft and neck of the femur.

The case was discussed by Mr. KELLOCK, Mr. LOCKHART MUMMERY, the PRESIDENT, and Mr. BEDDOES.

Deformity of the Cervical Spine.—MR. P. MAYNARD HEATH.—Girl, $2\frac{1}{2}$ years. The mother had noticed a lump in the back of the neck for five months. The child carries her head forward rather stiffly, but there is no real rigidity of the cervical spine. In the region of the sixth and seventh cervical spinous processes is a bony prominence. It is about 1 in. long and $\frac{1}{2}$ in. broad. At the inner end it is attached to the spinous processes, and from these is directed downwards and outwards, in the deeper fibres of the trapezius muscle, towards the upper angle of the scapula. The outer end is unattached, and no band between it and the scapula can be felt. The scapula is not deformed, and is not elevated above its normal position. No other bony swellings can be felt.

Mr. KELLOCK commented on the case.

Multiple Exostoses.—Mr. P. MAYNARD HEATH.—Boy, aged 5 years. There is no history of a similar complaint in any member of the family, but a well-marked history of hereditary syphilis.

Achondroplasia.—Dr. F. LANGMEAD.—Girl, aged 10 months. The patient is a characteristic example of the condition. She was brought to Paddington Green Children's Hospital because she makes no attempt to stand, and cannot sit up without assistance, although she is quite bright and intelligent, beginning to use a few simple words. The head shows the usual globular shape, is flattened behind, and somewhat projecting in front. Its greatest circumference measures $18\frac{1}{2}$ in., and its vertical measurement from one external auditory meatus to the other is $12\frac{3}{4}$ in. The fontanelle is about $1\frac{1}{2}$ in. wide. The root of the nose appears somewhat depressed. The face is proportionately small. The total length of the baby from crown to sole is $21\frac{1}{2}$ in., the dwarfing being especially due to the shortness of the femora. The greatest breadth—*i. e.* from the tip of the middle finger of one hand to the tip of the corresponding finger of the other—is $18\frac{1}{2}$ in., the upper arms being proportionately shorter than the forearms. The trunk appears unduly long, because of the stunting of the limbs, and measures $10\frac{1}{2}$ in. The proportion between the proximal and distal parts of the limbs is shown by the following figures: Acromion to external condyle of humerus, $3\frac{1}{4}$ in.; external condyle of humerus to styloid process, $3\frac{1}{2}$ in.; anterior superior spine of ilium to external condyle of femur, $4\frac{3}{8}$ in.; external condyle of femur to external malleolus, $3\frac{1}{4}$ in.

The baby is well nourished, and in the upper arms and thighs the stunting of the bones has caused the soft tissues to be disposed in folds, with intervening sulci. Complete extension of the arm is impossible. The hands are short, the fingers radiating in the usual trident fashion, so that the third and fourth fingers cannot be approximated along their whole length, but if opposed at their bases diverge at their tips. There is marked hypotonia and looseness of joints, especially of the wrists. No lordosis has developed at present—an indication that it is compensatory—but there is, on the contrary, a definite convex curvature in the dorsi-lumbar region. The little toes are very short, and curved inwards. There are no other abnormalities.

The PRESIDENT commented on the case.

Myopathy (? Affection of the Facial Muscles).—Dr. F. LANGMEAD.—The boy was brought to the Royal Free Hospital for increasing weakness and difficulty in walking. The duration of the condition cannot be determined, since he had always been weakly, but it has been particularly noticeable for the last six months. The difficulty in walking was first detected by the great effort he has to make to go upstairs, and now he is said to take about half an hour to climb a short flight. He soon gets tired if taken for a walk, and has sometimes to be carried home. If he falls down, according to the mother's statement, he "lies like that for a long time, not trying to get up, and if he does get up he never gets up properly." Certain groups of muscles show definite pseudo-hypertrophy. This is clear in the case of the quadriceps and calf muscles on both sides, and of the hamstring muscles and gluteus maximus of the right side. Other muscles are atrophied, this change being apparent in the pectorales, trapezii, and latissimi dorsi. The serratus magnus appears to be functioning on each side, but there is some winging of the scapulæ. The humeral and forearm muscles are not definitely altered in size. There is some lordosis and a

slightly rolling gait. He gets up from the floor without assistance and without much difficulty, but in the usual manner in this condition. The general nutrition is good, and otherwise the boy is healthy. A point of special interest is whether the face muscles are affected. He is able to perform the usual facial movements, but his mother volunteered the statement "that he never smiles, and is always pouting." There is certainly a rather fixed expression, the mouth is always open, and the lower lip is a little everted. Apart from this, the case is characteristically one of pseudo-hypertrophic myopathy. Groups of pseudo-hypertrophied muscles are present, however, not uncommonly in the Landouzy-Dejerine variety.

No history has been obtained of any similar condition in other members of the family.

Secondary Optic Atrophy due to a (?) Cerebellar Tumour.—

Dr. O. K. WILLIAMSON.—A boy, aged 7 years, was brought to hospital for loss of sight, headache and giddiness, also wasting. It is stated that the symptoms commenced seven months previously, that the headache, which is frontal, and does not appear to be constant, has been worse since about the beginning of December last, and that the loss of sight was not noticed until about two months later. No history of vomiting or fits can be obtained. It is stated that some years ago the boy had tuberculous glands in his neck.

On examination the pupils were seen to be dilated, and to react well to light. Mr. Juler, who saw the child on February the 24th, reports in regard to the eyes: Vision, right defective; left $\frac{6}{60}$. Discs very pale, and of post-neuritic type of atrophy. Vessels of a fair size. Edges slightly blurred, lamina cribrosa invisible. No paralysis of cranial nerves. No loss of power of upper or lower extremities. Knee-jerks present. Right one perhaps rather brisker than left. Bowels constipated.

On March the 14th it was stated that the boy when walking tends to fall to the right.

The History of Infant Feeding from Elizabethan Times.—Dr. DAVID FORSYTH read a paper on this subject. Tracing the changes in breast-feeding through nearly four hundred years he showed how in each century the period of suckling had steadily declined. Beginning in the fifteenth century at two to three years—a duration which is still customary among the Japanese and the Greenlanders—it had become eighteen months to two years under the Stuarts, one year in Georgian days, and now lasted only about eight months. Step by step the mother had been supplanted, first by the wet-nurse, and later by the sucking-bottle. The rise and fall of the wet-nurse, who reached her palmiest days in the eighteenth century, were described together with the social evils that she brought with her. Artificial feeding was quite unknown until the time of the Hanoverian succession, and even then the choice of food was limited to bread-and-water pap. A little later cow's milk came into use, and Dr. Forsyth showed how the profound suspicion of all artificial methods was to be accounted for by the sanitary condition of the people in Tudor and Stuart times. Cow's milk, however, for more than a century after its introduction, was held in general disrepute for the reason, no doubt, that a widespread prejudice against boiled milk existed among all classes. In the nineteenth century three notable developments were witnessed—first the invention of a sucking-bottle, second, the manufacture of proprietary foods, and third, the final acceptance

after long struggles of artificial methods. The original feeding-bottle was a cow-horn, to the tapering end of which were tied a couple of pieces of leather sewn together like the finger of a glove, and the babe sucked its milk between the stitches. The gradual stages by which this "horn" developed into the modern hygienic feeding-bottle were traced. Finally the more recent developments in the methods of feeding during the last fifty years were described. In conclusion, Dr. Forsyth, recalling the striking decline in the duration of breast-feeding and the steady progress of artificial methods, glanced at the future of infant feeding. Did it lie with the method of Nature or with the methods devised by man's ingenuity? His experience had been that medical men, more often than was sometimes thought, supported the bottle against the breast, and he thought that in doing this they were showing no more than a practical appreciation of the modern trend of infant feeding.

The paper was discussed by the **PRESIDENT** and **Dr. BEZLY THORNE**.

Dr. W. BEZLY THORNE said it was his conviction, after forty years of observation, that the difficulty in breast-feeding, though it rested to a considerable extent on the mother, rested to a very much larger extent on the monthly nurse. The nurse strongly objected to bringing the child to the mother, and it was his absolute conviction that drugging of infants by monthly nurses was an extremely common practice; that the young mother was persuaded over and over again that the milk was disagreeing with the child, whereas it was really the drugging of the child which was doing the harm. The confiding mother was persuaded to give up the natural mode of feeding.

A Plea for the Home Treatment and Prevention of Measles.—**Dr. R. MILNE** read a paper in which the use of carbolised oil for the throat and inunction of the skin with eucalyptus was advocated.

The **PRESIDENT** commented on the paper, but discussion was adjourned until May the 28th, after the publication of the paper in the 'Proceedings.'

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

January the 20th, 1911.

Muscular Dystrophy (Pseudo-hypertrophic Paralysis).—**Dr. E. F. TREVELYAN** showed a case which commenced at the age of eight and had persisted for twelve years. There was pseudo-hypertrophy of the calf muscles, but particularly of the triceps muscles. There was marked atrophy of the glutei and latissimus dorsi, but only slight atrophy of the lower pectorals and spinati. The scapulæ were slightly winged. The gait was waddling and there was lordosis in the lumbar region.

February the 17th, 1911.

Acute Osteomyelitis.—**Mr. W. THOMPSON** showed a boy, aged 12 years, in whom four years ago the greater part of the right tibia was removed for acute osteomyelitis. The upper epiphysial line of the tibia had been

destroyed and it was three inches shorter than the other tibia. The right fibula was half an inch shorter than the other and had overgrown the tibia both above and below.

Keloids of Neck.—Mr. H. LITTLEWOOD and Mr. S. W. DAW showed a boy, aged 12 years, with keloids of the neck following burns from a celluloid collar two years ago. The tumours began to appear as the scar was healing.

March the 17th, 1911.

Persistent Thyro-glossal Duct.—Mr. ALEXANDER D. SHARP showed a child, aged $2\frac{1}{2}$ years, who presented a tiny opening in the middle line of the neck between the hyoid bone and the thyroid cartilage. It was first noticed by the mother when the child was six months old. The opening admitted a probe of calibre of a Eustachian bougie for about one third of an inch. An almost colourless fluid exuded from time to time in very small quantities.

Vaccine Treatment of Basal Meningitis.—Mr. A. GOUGH showed a child, aged 6 months, recovering from basal meningitis. The cerebro-spinal fluid obtained by lumbar puncture contained large numbers of Gram-negative cocci similar in appearance to those of Weichselbaum. Treatment with autogenous vaccine was followed by rapid improvement. The child was now very well but showed slight hydrocephalus.

Bismuth Poisoning.—Mr. H. COLLINSON showed a child, aged 12 years, upon whom nephrectomy for tuberculous kidney had been performed eight weeks previously. A paste consisting of bismuth subnitrate two parts, iodoform one part, and solution of hydrarg. perchlor. 1:1000 was rubbed into the wound surfaces. For the last six weeks the child had suffered from salivation and black discoloration of the gums, cheeks, and lips. The symptoms were, he thought, to be ascribed to poisoning by bismuth.

Philadelphia Pediatric Society.

MEETING, February the 14th, 1911, J. TORRANCE RUGH, M.D., President.

(Continued from p. 176.)

Infantile Hemiplegia.—Dr. JOHN F. SINCLAIR showed a coloured boy, aged $4\frac{1}{2}$ years, who had been breast fed three years, though condensed milk had also been given after the third month, and table food after the second year. The history was vague as the mother could not be reached; there was no reason to suspect syphilis. The child had never been sick, though he had had some attacks of diarrhoea whenever he got a tooth. He talked and walked at the same age as other children. He had not had any convulsions. At three years trembling of the right side was first noted, with loss of power in the right arm and leg, and gradually he lost the power of speech. This condition had gradually grown worse; now he had difficulty in walking, standing, talking, and could not hold things in his right hand. There was never any pain. Dr. Langdon reported no abnormal condition of the eyes.

The right upper extremity showed constant athetoid movements; inco-ordination prevented all useful movements. Wrist and forearm were flexed, though not rigidly; power was much reduced. There was no deformity and no atrophy; knee-jerks and Achilles jerks were exaggerated. He probably presented a post-natal cerebral lesion, involving the left internal capsule, including the speech-fibres from Broca's area. From its insidious onset without convulsions the lesion was probably a thrombus. While his speech might improve with training, the athetosis, spasticity and motor weakness were unlikely to improve much. The absence of convulsions and the persistence of some speech were favourable indications for the mental outlook.

Dr. H. M. LANGDON said that examination of the eyes showed nothing that could help in diagnosis. The absence of changes in the ocular structures was decidedly against the presence of any cerebral neoplasm. Vision was normal and the pupils reacted well; no fundus changes were visible. Yet Dr. Spiller has reported two cases of slowly occurring hemiplegia as a sign of brain tumour, without any fundus changes at all. Dr. C. S. Potts had also reported such a case, Dr. Langdon having made the ocular examination two weeks before the patient's death.

Dr. A. H. WOODS said these cases presented great interest, especially in prognosis. There could be no question as to the cerebral hemiplegia, since tremor, weakness, and athetosis were marked and aphasia had developed after speech was established. There was some rigidity and spasticity, with distinctly increased knee-jerk on the affected side. It was, therefore, a post-natal hemiplegia. But the cause was not easy to assign. Arterial disease ante-dating birth might be the determining factor in a natal or post-natal lesion. It was conceivable that a very slow-growing tumour might be present, but this need hardly be considered. Dr. Woods believed that there was a vascular lesion, probably hæmorrhage, embolism or thrombus, with softening following. The gradual spread of this area would account for the slight increase in symptoms. Autopsy would show a cyst or scar with surrounding sclerosis. The boy, with proper teaching, should again learn to talk.

Dr. J. T. RUGH added that an elder brother of his was suddenly attacked by hemiplegia at the age of three years. For six years he had absolute aphasia; at the age of nine he spoke, and at eleven he began to walk. He had been a practising physician for twenty-six years, was quite well, and was now fifty years old. His complete recovery had been remarkable. Thus the prognosis of infantile hemiplegia was not always grave.

In answer to Dr. Hammond's question whether decompression ought not to be attempted in this case, Dr. SINCLAIR said that symptoms had not progressed so decidedly that operation seemed indicated. He believed the condition to be the result of an old lesion. Proper individual attention should now bring about great improvement.

Congenital Pyloric Stenosis.—Dr. H. A. SUTTON, by invitation, reported the case of an infant aged 6 weeks, in whom symptoms of pyloric stenosis existed two weeks, when operation was successfully performed.

Dr. L. J. HAMMOND said the ætiology, which at present was largely confined to a theoretic discussion, was most interesting. The most logical theory would seem to be that which involves a consideration of those factors entering into faulty embryologic development. The pylorus varied widely both in shape and structure, from the usual ring-shaped constricting band

formed by a reduplication of the gastric mucosa through which circular muscular fibres were found in varying amounts and development; it might be oval or formed by two crescentic bands one above the other below the orifice, or it might consist of but a single crescentic fold. This inconstancy of formation would suggest the possibility of a vice in its development when there was added such an error in development as an unusually high position of the pyloric end of the stomach, producing angulation, and thus excessive connective tissue; hyperplasia in those cases where the pylorus consisted of a single fold, or twisting of the longitudinal fibres, might be responsible for reversion in their growth and development. Whatever the determining factor faulty embryologic development seemed the most ready explanation. The condition was often associated with other developmental defects.

Dr. C. H. WEBER said that he had seen the patient several times before operation. The presence of the loud systolic murmur and an enlarged liver, associated with vomiting, made the diagnosis uncertain; but later, visible peristalsis was elicited, the vomiting became projectile and the diagnosis was readily made. The presence of the congenital heart lesion could possibly be considered a point in favour of the theory of congenital origin of the hypertrophy. Dr. Weber thought that in spite of the good results obtained by medical treatment, especially as reported in the English statistics, the tendency would be toward surgical intervention. Many cases of recovery after operation were being reported, and no doubt results would continue favourable in early cases. Medical treatment required very careful dietetic care and was a long, tedious process, possibly lasting for months. Dr. Weber said that he referred only to the type of cases having the anatomical conditions which were found in the patient under discussion.

Dr. J. F. CROZER GRIFFITH urged the importance of giving medical treatment a fair trial. There were cases such as the one reported that evening and another recently shown at the society by Dr. Lowenburg, which Dr. Griffith had also had the opportunity of seeing in consultation, where there was no doubt about the advisability of operating. There were many other cases, however, where the question of operating was a most difficult one to decide. Within a few months he had been called to see a child in whom symptoms were typical; a few days later he was asked to come hurriedly, with a surgeon, for operation. It was found that a very small amount of faecal matter had appeared in the stools and it was decided to wait twenty-four hours. The child was now entirely well without operation. Admitting that hypertrophic stenosis was congenital and the infant remained perfectly healthy for several weeks, suddenly showing symptoms of stenosis, it was evident that something more than the hypertrophy must be present to account for the condition. It was clear that there existed in addition to the hypertrophic stenosis, or perhaps existing entirely without it, a condition of pyloric spasm, and in some cases also of swelling of the mucous membrane. It was probable that in nearly every case of hypertrophic stenosis a certain element of spasm was present, and it must be true, from the large number of cases which had recovered without operation, that in a great many spasm existed alone, or if there was any hypertrophy it was of a degree which by itself did not produce symptoms. Dr. Griffith believed that symptoms supposed to describe each variety of case could not be depended upon and the question of operation often became puzzling. In view of the high mortality which had attended the operations recommended for the disease, one must hesitate before advising any one of them, while it was equally serious to delay operating so long that the strength of the infant was

weakened to an extent which removed most chance for recovery after operation.

Dr. HARRY LOWENBURG said that the whole question was one of diagnosis, the treatment being almost invariably surgical once the diagnosis was made. Most cases died because they were treated as marasmus, the profession being insufficiently informed as to the frequency and symptomatology of the condition. All cases of persistent vomiting associated with wasting should be regarded as pyloric stenosis until it could be proved that they were not. It was not safe to temporise long. Dr. Lowenburg believed that no case of true hypertrophic pyloric stenosis ever recovered without operation. The infant should be placed in the best possible surroundings and great care exercised in preparing its food; if, in spite of this, it lost weight daily, operation should not be delayed. If weight and strength remained stationary or it gained ever so little, they could afford to wait. When a pyloric tumour could be palpated operation was indicated at once. The inability to palpate a tumour was often due to rigidity of the abdominal muscles from crying or straining. Dr. Lowenburg could overcome this by a few whiffs of chloroform, just enough to still the infant; he recommended this as a routine procedure in these cases.

Dr. MILLER said that he had seen five or six cases of so-called hypertrophic pyloric stenosis treated by careful dietetics and lavage with recovery. In every case the principal cause of the symptoms was spasm; in some it was pure spasm; in others, spasm plus some hypertrophy of the muscular fibres of the pylorus; and in others absolute occlusion of the pylorus due to true hypertrophy. To decide when to operate was the great difficulty. Dr. Miller advised postponing the operation so long as the baby did not lose in weight and continued to pass fæcal matter by the bowel. Patient persistent dietetic experimenting would do much. In the treatment he advised feeding only when the stomach was empty, to be determined by the passage of the tube, a quantity that could be retained without vomiting—not too much. The presence of reversed peristalsis was not a sign of pyloric stenosis alone; it might be present when no true stenosis existed, and the same might be said of projectile vomiting and other classic symptoms of the affection.

Hæmorrhagic and Gangrenous Varicella.—Dr. FRANK CROZER KNOWLES read a paper reporting a fatal case of hæmorrhagic varicella in a boy, aged 2½ years. Only six somewhat analogous cases were found in the literature. He divided these cases into varicella with hæmorrhagic lesions; varicella with a hæmorrhagic and gangrenous exanthem; varicella associated with petechial eruption; varicella with hæmorrhages from the kidneys, stomach, intestine; and gangrenous, non-hæmorrhagic varicella. Under the latter heading were included cases of varicella gangrænosa. Dr. Knowles concluded that there was a true form of hæmorrhagic varicella, starting with ordinary vesicles with clear contents which some hours later became filled with blood. It was a rare complication of varicella. The hæmorrhagic vesicles might lead to the formation of gangrenous areas. The virulence of the infection and the resistance of the individual governed the hæmorrhagic and gangrenous tendency. There was also a true form of varicella in which the contents of the vesicles became purulent and might lead to gangrenous areas, but usually to ecthyma or impetigo. The term varicella gangrænosa should be applied only to cases of gangrene directly caused by varicella. Dermatitis gangrænosa infantum should be applied to cases of gangrene in children whether associated with varicella or not, if not

directly dependent upon that condition. Twenty-eight references were given in the paper.

Dr. MAURICE OSTHEIMER, who had also seen the case, spoke of the question of diagnosis. The history of recent chickenpox in the family and the presence of typical vesicles together with lesions in all stages of development excluded smallpox. Dr. Ostheimer believed that the hæmorrhagic variety of chickenpox was rare because the individuals who showed a hæmorrhagic tendency were rare; that this idiosyncrasy explained the occurrence of hæmorrhagic varicella better than a very virulent infection or a poor general condition of health. This child was one of a family, all brought up under the same conditions, and apparently as strong as the others. Yet he had hæmorrhagic varicella and died, while the rest only had simple chickenpox. He agreed with Dr. Knowles that the gangrenous variety, whether it occurred with true varicella or not, should be separated from the hæmorrhagic variety of varicella, a rare form of true varicella, and should be considered as a skin disease, while hæmorrhagic chickenpox remained an infectious disease. It should not be forgotten, either, that traumatism during an attack of chickenpox might result in the occurrence of some hæmorrhagic lesions.

Dr. GRIFFITH said that he had the records of two cases of hæmorrhagic varicella which must have been very similar to the case described by Dr. Knowles. In one the course was extremely rapid, with widespread purpura, death occurring before gangrenous changes could take place. He had also seen two cases of varicella gangrænosa, one previously reported; in the other the germ present was found to be the *Bacillus pyocyaneus*.

Dr. A. E. ROUSSEL spoke of the similarity between hæmorrhagic varicella and hæmorrhagic variola. He had seen some lesions of varicella that became hæmorrhagic from local traumatism and similar instances in smallpox also. He regretted that Dr. Knowles had not given a percentage of deaths in his cases. In smallpox, when hæmorrhage occurred in individual pustules, recovery followed in only 10 per cent.; when petechiæ occurred death was almost sure to follow. Leucocytosis, generally present in smallpox, was most marked in the hæmorrhagic cases, especially the purpuric type, showing an increase in the mononuclear cells with the occasional appearance of normoblasts.

Dr. KNOWLES added that one of the four petechial cases died and two of the other six cases died. No leucocyte count or differential counts were made because the case died three days after it was first seen. No family history of bleeding could be obtained. Therefore Dr. Knowles considered the virulency of the infection and the lack of resistance of the individual the causes of the varicella becoming hæmorrhagic.

Société de Pédiatrie, Paris.

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Discussion on Hypo-alimentation.—M. COMBY was of opinion that in natural feeding with a good nurse matters righted themselves whether the infant took the breast at long or short, regular or irregular, intervals. It was when the nurse had not sufficient milk that the phenomena of hypo-

alimentation made their appearance. The alimentation was purely an individual matter, and it was impossible to fix theoretically the quantity of milk that ought to be taken. Among infants on the bottle over-feeding was much more frequently met with. Weaklings required a higher ration than normal infants, and in certain cases, in order to grow, could absorb amounts of milk corresponding to one fifth or even one fourth of their weight.

M. E. GAUJOUX, of Montpellier, reported twelve cases in which he had found the mother's milk deficient in quality. By drinking a quantity of fluid a woman could generally vary the output of her mammary secretion from one sixteenth to one third, but the non-aqueous principles of the milk suffered a proportional diminution. He urged the importance of analysing the mother's milk.

M. LEMAIRE had had the opportunity of observing three children in which change of milk and variations in the quantity taken at each feed had brought about no amelioration of the vomiting and digestive disorder. In these three cases, after a water diet of some hours, the speaker gave a *purée* of potato with a small quantity of amylodiasase. In all cases the digestive troubles disappeared and the body-weight, which had been either stationary or lowered, began to ascend regularly. He thought the digestive troubles were caused by a kind of anaphylaxis or intolerance of milk in any form.

Cleft Palate and the Uvula.—M. VEAU showed a child, aged 8 months, on which he had performed staphylorrhaphy, and insisted on the necessity of making a long uvula.

Hypertrophy of Thymus and Mediastinal Adenitis.—M. VEAU also showed a child, aged 5 months, who had had all the signs of thymic enlargement, viz. dyspnoea, attacks of suffocation, difficulty in swallowing, recession, and marked manubrial dulness. During the operation, contrary to expectation, there was found a small thymus, and behind the brachio-cephalic trunk a greyish mass, the size of a hazelnut, consisting of a gland infiltrated with pus, and another gland distinctly suppurating. The symptoms did not subside until three days after the operation. The author remarked that such symptoms supervening on an infectious disorder, such as broncho-pneumonia, and gradually becoming more severe, should eliminate the diagnosis of hypertrophy of the thymus and point rather to a tracheo-bronchial and mediastinal adenopathy.

Lymphangioma of the Foot.—MM. MAUCLAIRE and SÉJOURNÉ showed a boy, aged 7 years, who had a tumour removed from the sole and outside of the foot adherent to the skin and plantar fascia. Microscopically it was a lymphangioma.

Apparatus for flushing Abscesses.—M. OMBRÉDANNE showed this instrument (which is figured in the 'Bulletin'). It allowed the abscess cavity to be well emptied and flushed with an antiseptic solution without changing the position of the trocar. The cicatrix was by this means reduced to two or three almost imperceptible white dots made by the trocar and two horse-hair setons.

Congenital Syphilis and "606."—M. SAVARIAUD related the case of a girl who had various osteo-articular changes treated partly by operation and partly by mercury, with slight benefit, from the age of three months to four years. A marked cure resulted in eight days after a single injection of "606."

Emotional Jaundice in Childhood.—M. MERKLEN related the case of a girl, aged 11 years, who on the day after a fright occasioned by her having been caught between two vehicles while crossing the road, was seized with gastric symptoms, and the day after with jaundice and white stools, lasting eight days. When convalescent she was sent to the country, where, fifteen days later, a cousin, a girl, aged 9 years, contracted jaundice. Several days later the brother of this last, aged 7 years, had a similar attack, but of greater severity.

VINCENT DICKINSON.

Abstracts from Current Literature.

Medicine.

Do medical schools adequately train students for the prevention of infant mortality? (*New York Med. Journ.*, 1911, I, p. 112).—Under this title **Ira S. Wile** severely criticises the training of students in all that concerns early infant life. He points out that in the United States one fourth of all born die at or under the age of 1·8 years, and quotes Westergaard, who has shown that 25 per cent. of the mortality of Berlin during the first year occurs during the first month and 47 per cent. during the first three months. In London 11·09 per cent. of the first year's deaths happen within the first month, and 34·6 per cent. is confined to the first three months. "Should," he asks, "the problems of infancy be placed in a subordinate position in medical curricula when they occupy the most prominent place in the category of destructive conditions?" There are no medical schools which give adequate instruction in the prevention of infant mortality, whilst the possibility of reducing the infant death-rate is retarded until such is forthcoming. One half of the infantile death-rate is from preventable causes. Holt, in his investigation of 44,226 deaths under one year of age, found 28 per cent. to be due to gastro-intestinal diseases, and in New York City 85 per cent. of the infantile deaths occurred among artificially fed children. In Great Britain 75 per cent. of the infant mortality is among bottle-fed children. Yet the medical schools do not lay stress upon infant feeding, in fact, probably 90 per cent. of the graduates receive "too little" instruction on the subject to allow them to take up the work of feeding infants without recourse to the widely advertised prepared infant foods. The teaching of pædiatrics must be strengthened. As every physician is called upon to care for infants, he should at least be taught as much about them as about numerous operations which he may never have a chance to perform or even see. General hospitals fail, for the most part, to have special wards for children. The principles and practice of infant feeding especially should be taught, and the evidences of incorrect feeding learnt from a study of the vomitus and the stools, not merely theoretically in a lecture room. Sufficient evidence is not laid on the dangers of artificial feeding, and students are seldom told how to improve the milk supply of the mother. Over 40 per cent. of the present infant mortality has been adjudged to be preventable, and 52·5 per cent. of infantile deaths is due to acute gastro-intestinal diseases, marasmus and inanition, and prematurity after the seventh month—conditions which are capable of considerable modification and improvement, chiefly through proper care and

feeding, yet the subject of infant hygiene is neglected. The fundamental causes of infantile mortality may be summed up as poverty and ignorance. The physician may not be able to cure poverty, but he can correct the ignorance and its stepchild, neglect. Students should have lectures upon social questions as related to the cause of infantile morbidity, and also training in the value of various types of institutions for the cure of the diseases of child life. To be successful the preventive work in pædiatrics must have a foundation in the knowledge that the faulty social structure is at the basis of many of the ills that infant flesh has thrust upon it.

FREDERICK LANGMEAD.

Infant mortality in New York City (*Med. Record*, 1911, I, p. 146). —**Wilbur C. Phillips** states that in the summer of 1910 the infant mortality in the Borough of Manhattan, New York City, increased from 168 deaths per 1000 births in 1909 to 178 deaths per 1000 births. While the cause for this was being argued, the absence of any need whatever, not only for an *increased* infant mortality rate, but for probably more than half of the present infant mortality, had been conclusively demonstrated. In New York City, as in Europe, it had been shown that infants need not die if pure milk can be distributed, and if their mothers can be made to feed and care for them properly. In four infants' milk depôts maintained in congested quarters by the New York Milk Committee an average of 350 babies were cared for throughout the summer, of whom only one died of diarrhœa, and that because of the obstinacy of the mother. In another depôt, where 125 babies were cared for, there were no deaths, and in three others only five succumbed during the summer from diarrhœa. These results, obtained in districts where poverty was intense, where living conditions were intolerable, where congestion was rank, where great ignorance prevailed, and where the heat was as keenly felt as anywhere else in New York City, indicate that infant mortality is not inherently due to any of these causes. No specially modified milk was distributed in individual feeding-bottles, but the mothers had prepared home modifications from whole milk throughout the entire summer. The purity of the milk was undoubtedly a great factor in the saving of infant life, but the main reason why these babies lived was the superior care and oversight which they received from their mothers, as the result of the sustained efforts of the doctors and nurses in the Committee's depôts. Institutional care of babies is a failure. Breast-feeding has been discouraged by the lavish distribution of commercially modified milk. Emphasis has been placed upon percentage formulæ and pasteurisation, but we have forgotten that the preparation of the food and the meeting of emergencies which are frequently arising can be most sympathetically taken care of by the mother herself. That even under the poorest circumstances she is able to care for her baby if she be given the necessary instructions has been conclusively demonstrated. The milk depôt was an indispensable factor in the campaign. Here the nurse had her headquarters; here the mothers came to seek advice once a week, bring their babies to be stripped, weighed, examined, and prescribed for by the physician. The plan of working from the milk depôt centres, thus combining home visitations with class work and central supervision, is by far the most effective scheme yet employed. With regard to expense, the cost of saving the 8000 babies who at present die needlessly in New York City would not be greater than the cost of burying the same number.

FREDERICK LANGMEAD.

The physician's responsibility in preventing infant mortality (*The Dietetic and Hygienic Gazette*, 1910, p. 589).—**H. Lowenburg**, in discussing this question, makes several very pointed suggestions, some of which are of a rather startling nature. The physician's responsibility antedates the birth of a child, and he should endeavour to aid the infant, yet unborn, in choosing its future parents. The State should control marriages, and should withhold its licence until both parties present a clean bill of health as certified to by a competent medical attendant, who should not hesitate to give advice, when asked, that will prevent the marriage of those who are constitutionally ill of diseases that are well recognised as transmissible, or, if not directly so, produce in the offspring a predisposition that is equally dangerous and will unfit it for the struggle for existence. When diseases such as tuberculosis, syphilis, etc., are known to exist in those already married, the author believes that prevention of conception is an important and justifiable prophylactic measure. Syphilis, etc., in the pregnant woman ought to be vigorously treated. Accidents during parturition should be prevented by the obstetrician being prepared not only to meet emergencies that threaten the infant's life, but also to avert dangers by anticipating them. It is pointed out that during the first few years of life proper nutriment and the prevention of infection are the two chief prophylactic measures. Breast-feeding should be advised wherever possible, but if for any good reason it is contra-indicated, an endeavour should be made to command a pure milk supply. With regard to the prevention of infection, the author remarks that our greatest means against infection is to make the surroundings of the poor livable. He advocates a strenuous educative campaign against ignorance, superstition, and filth.

J. ALLAN.

Reduction of infantile mortality from the diarrhœal group of diseases; administrative measures (*Journ. Roy. Inst. Public Health*, 1910, p. 72).—**John J. Buchan** lays great stress on educational measures, which should aim at spreading knowledge regarding infant feeding and hygiene. Breast-feeding should always be encouraged. The work is best carried out by specially trained lady health visitors. The assistance of voluntary workers is invaluable, and medical men and midwives can do much to help in the home instruction of mothers. The author thinks that far too little importance is given to the subject of infant rearing in the medical curriculum. Older girls and young women in elementary schools and in continuation classes ought to receive instruction regarding infant feeding. A suitable food should be provided for hand-fed infants, and in St. Helens an infant milk dépôt has been established for over ten years. The use of patent foods and condensed milk is condemned. Good dried milks afford a safe and excellent way of feeding infants who cannot have breast milk. Among general sanitary measures are mentioned the prohibition of dummy teats and long tube bottles, warfare against flies, better cleanliness in and around the home, etc. Of special measures the author thinks that there are many difficulties to be overcome before notification could be adopted as a practical administrative measure. In July, 1905, the local authority in St. Helens determined to receive into their isolation hospital "when and so far as accommodation permits, cases of diarrhœa in infants housed under such conditions that they cannot be properly treated or nursed."

J. ALLAN.

Milk supplies for large towns (*Edinburgh Med. Journ.*, 1910, p. 197).—**John Robertson**, Medical Officer of Health for Birmingham, affirms that

much of the milk supplied to large towns passes through the hands of dealers and is brought from a distance, so that the interval between the milking of the cow and the consumption of the milk is considerable. The risk of contamination is consequently great, and, in fact, 7 to 14 per cent. of all milk sent into large cities contains the living germs of tuberculosis, much contains dirt of an objectionable sort, and occasionally it is infected with other pathogenic organisms. Reform is urgently needed, especially at the milk producers' premises, where often considerable expenditure is required to bring the byres up to sanitary efficiency. To enable the dairy farmer to do this provision should be made by the Government in the direction of loans for short periods. The byre should be bright, airy, and an adequate supply of water for cleansing purposes should be available. Also the herd should be kept free from disease and be fed properly and the milk should be handled carefully. Especially important is tuberculosis, from which, as judged by tuberculin tests, about 30 per cent. of dairy cows are suffering. This should be eradicated by the help of an efficient staff of veterinary service men, and the farmer should be compensated for slaughtered cows. Milk receives serious damage in the smallest class of dwelling house occupied by the poorest of the people, to whose infants fatal summer diarrhoea is almost confined.

FREDERICK LANGMEAD.

Some problems in infant feeding (*Glasgow Med. Journ.*, 1910, II, p. 246).—**Leonard Findlay** emphasises the importance of breast feeding for infants. Attention is drawn to Meyer's investigations regarding the influence of various salts on the young infant. It would appear that the great difference between cow's milk and human milk lies, not in the difference between the curds, but in the variation in the composition of their wheys. Infants fed on a mixture of human curd and cow whey developed all sorts of gastro-intestinal disturbances, as if they had been receiving undiluted cow's milk. Gastro-intestinal disorders can be cured by giving a mixture of cow curd and human whey. Faulty administration is responsible for much gastro-intestinal trouble. Regularity of feeding and the frequency of the feeds are most important points in this connection. Failure of a child to thrive at the breast is not an indication for immediate weaning. This may be simply due to deficient quantity of milk, the child suffering from inanition. In such cases one should prescribe "*allaitement mixte*," although too often the mother decides at once to wean the child, a practice which cannot be too strongly deprecated. Statistics relating to 200 cases are submitted to a critical analysis.

J. ALLAN.

Should eclamptic mothers nurse their newborn? (*Mont. Med. Journ.*, 1910, xxxix, p. 737).—**J. R. Goodall** answers this question in the negative. He relates three cases of infants nursed by eclamptic mothers which died suddenly with extreme cyanosis and respiratory failure. Autopsies on such children have generally shown advanced degeneration of the kidneys and hæmorrhages in the liver, in fact lesions like those seen in eclamptic women. The writer considers that the milk of eclamptic women is toxic; it would be, he says, a very singular lack of coincidence if a mother's milk could be saturated with toxins without the milk being tainted with the same metabolic products. It has been shown by Massen that the urine of eclamptic mothers is less toxic than their blood. Goodall considers that with the milk is secreted a toxin more virulent than that which circulates in her own system. He shows that morphia causes the most alarming symptoms in the nursing

infant, but does not seem to affect the foetus *in utero* even in larger doses. He also shows that in a mother taking arsenic ten times as much can be obtained from the milk as from a similar quantity of urine. The same argument holds good for the poison of eclampsia. Goodall in such cases feeds artificially for a few days, and has the breasts emptied once or twice before the child is allowed to nurse. If there are post-partum convulsions the maternal elimination should be allowed to go on till she is freed from the greater part of the poison and then the breasts emptied before the infant is nursed. If albuminuria persists after gestation, it will be well to feed artificially throughout.

J. PORTER PARKINSON.

The influence of colloidal protection on milk (*Journ. Amer. Med. Assoc.*, 1910, II, p. 1196).—**Alexander** and **Bullock** state that the addition of protective colloids to cow's milk sterilises it and makes it more like human milk when treated with acid and rennin. If sufficient colloid be added coagulation of the casein in the stomach may be entirely prevented, or at least the coagula kept in a fine state of subdivision. Colloidal protection may be brought about by the use of animal proteins (gelatin, albumin), vegetable proteins (gluten), or carbohydrates (gum-arabic, tragacanth, Irish moss). The dextrinised gruels now used combine the protective colloids gluten and dextrin. Under the ordinary conditions of digestion casein is coagulated only in neutral or acid solution. It is evident, therefore, that alkalis such as lime-water and bicarbonate of soda may by their antacid action partially or entirely inhibit the coagulation of casein. Sodium citrate, however, is different, and acts as a protective colloid. Increasing the colloidal protection tends to improve the digestibility of cow's milk and absorption of both casein and fat, and to prevent the formation of indigestible curds.

T. R. WHIPHAM.

Indications and directions for the use of albumin-milk (*New York Med. Journ.*, 1911, I, p. 121).—**Isaac A. Abt** writes on this method of feeding, introduced by Finkelstein in Berlin. Albumin-milk is prepared, he says, in the following manner: One tablespoonful of essence of pepsin is added to a quart of milk, and the dish containing it is placed in a water bath until the milk is heated to about 100° F. After the milk has curdled it is stood aside for fifteen minutes, when the whey is poured off. The curd is put into a clean muslin or cheese-cloth bag, tied at the top, and hung up to drip for two hours. By this time the curd is free from whey. It is now put into a hair-sieve and broken up by a small potato masher, adding boiled water little by little until enough has been added to make a pint. The curd with added water should now be strained. This process is repeated, passing it through the sieve six or seven times until the mixture is perfectly smooth and free from lumps. A pint of previously boiled butter-milk is now added, and also 1 per cent. of malt sugar in some form. The preparation is then ready to be bottled. It prevents abnormal intestinal fermentation on account (1) of the low content of easily fermentable milk sugar; (2) of the low content of whey salts; (3) of the comparatively high proteid content. The bottle should be well shaken before feeding and kept in a cool place. Albumin-milk contains 3 per cent. of proteid, 2.5 per cent. of fat, from 1 to 1.5 per cent. of milk sugar, and from 0.4 to 0.5 per cent. of mineral salts. The mixture contains the equivalent of 450 calories to each litre. In addition, 1 per cent. of malt sugar is added. It is indicated, he says, in all infantile disorders which are associated with

diarrhoea, especially in those where the breast-milk is not obtainable. It is valuable in cases of dyspepsia, entero-catarrh, cholera infantum, and atrophy. In cases of dyspepsia the baby is fed on tea sweetened by saccharin for six hours; then 10 oz. of albumin-milk daily, divided into five or six feedings to begin with. In cholera infantum and entero-catarrh he recommends a tea diet for twelve to twenty-four hours; then for one day albumin-milk, one teaspoonful ten times daily, with tea and saccharin in the intervals. In a day or two the albumin-milk may be increased from $1\frac{1}{2}$ to 2 oz. daily, when the stools become less frequent. Then increase the albumin-milk 3 oz. each day, until eventually the baby receives from 6 to 7 oz. to each kilogramme of body-weight in the twenty-four hours. In cases of atrophy the food should be increased as quickly as possible, even if the motions are not quite satisfactory. Sugar should be added soon in these cases, as the danger of under-feeding is paramount. For the first few days of treatment with albumin-milk the loss of weight may continue, and the general appearance does not improve. The entire quantity given should never exceed a litre a day. Children over three months old usually require from six to eight weeks' treatment in this way, those under three months about ten weeks'. As soon as the evacuations have improved or become less frequent sugar should be added, and this should be done after eight days at the most, even if the motions are still abnormal. The use of milk sugar or cane sugar is not advisable, since they may cause a relapse. Much more certain in their action are preparations of maltose or dry malt.

FREDERICK LANGMEAD.

Surgery.

Strangulated hernia in children (*Gaz. Hebdomadaire des Sci. Méd. de Bordeaux*, October 9, 1910, p. 484).—**Verdelet**, after describing three cases, mentions the various views on the frequency of strangulated hernia in children. He shows that it is especially common during the first two years of life, in many cases during the first two months, and then lessens, to increase again about the period of puberty. The symptoms are the same as in the adult. The herniæ are often reduced easily with gentle pressure if seen early. When the appendix is in the sac it should not be removed but replaced except it be seriously affected, as appendectomy in young children is a serious operation. The radical cure should follow the reduction, but it is not necessary to close the inguinal canal as carefully as in the adult, two catgut stitches being, as a rule, all that is necessary to obtain a good result.

J. PORTER PARKINSON.

Strangulated hernia in a baby (*Med. Press.*, 1910, II, p. 411).—**A. Edmunds** operated on a male infant, aged 5 weeks, in whom a hernia suddenly made its appearance and was found to be strangulated. A radical cure was performed and the child did well.

T. R. WHIPHAM.

Strangulated congenital umbilical hernia (*Journ. Amer. Med. Assoc.*, 1910, II, p. 1550).—**Maercklein** reports the case of an infant who was found to have a strangulated umbilical hernia at the time of birth. Operation was performed on the following day, when the gut was found to be considerably inflamed. Five days later a hydrocele of the cord developed. This burst spontaneously, discharging about two ounces of pus. The

opening in the scrotum was enlarged and dressed antiseptically, after which the child made an uneventful recovery. T. R. WHIPHAM.

Intestinal obstruction due to *Ascaris lumbricoides* (*Journ. of Amer. Med. Assoc.*, 1910, II, p. 1442).—**Whelan** saw a male child, aged $5\frac{1}{2}$ years, who presented all the signs of intestinal obstruction. Twenty minutes later the boy had a convulsive seizure and died. At the necropsy two large masses of round-worms were found in the jejunum.

T. R. WHIPHAM.

Fæcal fistula caused by round-worms (*China Med. Journ.*, 1910, p. 351).—**J. H. McCartney**.—A boy, aged 5 years, who had a distended abdomen and all the symptoms of peritonitis for the past three weeks, was brought to hospital with a protruding umbilicus, puncture of which gave issue to muco-purulent matter with a markedly fæcal odour. The opening was enlarged and much fæcal matter expelled. The same night five round-worms escaped through the opening, and another on the following day. Death took place a week later. No necropsy. J. D. ROLLESTON.

A unique case of laceration of the sphincter ani (*Glasg. Med. Journ.*, 1910, II, p. 231).—**A. B. Cooke**, at the annual meeting of the American Proctologic Society at St. Louis in June, 1910, placed on record this remarkable case. The patient, a little boy, aged 7 years, lived on a farm, and one day went out to his favourite place behind the corn-crib to attend to a call of nature. While he was thus engaged, a pet dog, a hound of medium size, came up from the rear, and, mounting him, effected entrance into the anus and became accoupled. The boy's cries quickly brought his mother to the scene, and in her excitement in separating the two she used considerable violence. The author on examination found little evidence of external injury. Traction upon the anus, however, showed that several internal lacerations of considerable extent were present. Under general anæsthesia the deepest of these was found to be in the middle line posteriorly, extending from a point two inches up the rectum through the sphincter muscles, and out upon the skin surface for a distance of approximately one inch. The external sphincter was torn in two places at this site, one tear being complete and the other partial. Anteriorly there was a second laceration into, but not through the fibres of the sphincter. In addition, there was a number of minor tears in the anal margin, involving the superficial tissue only. The two deep tears were sutured with catgut. Recovery was uneventful and there is complete sphincter control. J. ALLAN.

Pathology.

Experimental scarlatina in monkeys (*C. R. de la Soc. de Biol.*, 1911, LXX, p. 403; *Réunion biol. de Bucarest*).—**J. Cantacuzène** inoculated nine lower apes with scarlatinal products and in four reproduced the disease. The animals chosen were *Macacus rhesus*, *M. sinensis*, *Cercopithecus cephus*, and *C. griseo-viridis*. The virulent matter inoculated was blood taken from a patient during the first few hours after the appearance of the eruption, pericardial fluid, or an emulsion of the tracheo-bronchial glands removed three to four hours after death. Neither the blood nor the

pericardial fluid yielded streptococci in cultures. The subcutaneous method was found better than the intra-venous for the transmission of the disease. After an incubation period ranging from five to thirty-seven days the monkey's temperature rose to 104° F., at which it remained for some days, and a purple eruption appeared on the face, extending sometimes to the fore-legs, faded in thirty-six hours, and was followed by desquamation, which was well marked on the face, and less on the trunk and limbs. Generalised adenitis always occurred. At the onset of the disease there was a marked increase of polymorphs (87 to 89 per cent.). Eosinophilia of 4 to 5 per cent. marked the onset of the symptoms. All the animals recovered.

J. D. ROLLESTON.

Normal percentages of leucocytes in children (*'Archiv. of Int. Med.,'* December, 1910; *Abst. 'Journ. A.M.A.'*).—**Schloss** undertook the investigation primarily to determine the percentages of eosinophiles in children. Cases of manifest illness and those giving a history of any disease recognised as causing eosinophilia were rejected. The eosinophiles were over 6 per cent. in seven out of fifteen infants under two months of age, the highest percentage being 9·7. The highest percentages were found in infants between two days and two weeks of age. In none of the fifty-five children between two months and twelve years of age were the eosinophiles above 6 per cent., and in all the cases but two the percentage was less than 5. It seems, therefore, that there is no physiological eosinophilia in childhood, and that 5 per cent. may be considered as the upper limit of normal. More than 6 per cent. is pathological.

T. R. WHIPHAM.

Eosinophilia in children (*'Sem. Méd.,'* 1911, p. 17).—**J. A. Bauzá.**—The average eosinophile count in children does not differ from that met with in the adult. It is almost always lower than 4 per cent.; the average figure found by Bauzá was 3·2 per cent. In twenty-nine out of forty-three cases of hydatid cysts in children he found the eosinophile percentage higher than 4; of the remaining fourteen suppuration had occurred in seven, a condition in which eosinophilia is usually absent. Eosinophilia was most frequent in hepatic cysts (80 per cent.). After operation it disappears or diminishes. Its absence in abdominal sarcoma and tuberculous peritonitis accords the sign a certain diagnostic value. In helminthiasis it is inconstant. On the other hand, it is almost always present in syphilis, congenital or acquired, and in skin diseases, especially eczema, in which it was found in 80 per cent. In six out of eleven cases of exfoliating glossitis, unaccompanied by cutaneous lesions, the percentage ranged from 5·5 to 22.

J. D. ROLLESTON.

School Hygiene.

Some points of interest revealed by the medical inspection of 2000 school-children (*'School Hygiene,'* 1910, p. 335).—**L. A. Parry** gives his experiences in connection with the medical inspection of school-children in Hove. Malnutrition is very common, and the author thinks most of these badly nourished children would benefit greatly by open-air schools. Ring-worm is fairly prevalent, about 3 per cent. of the children in the schools being affected by it. Treatment by X rays is the most satisfactory method,

and is, in the author's opinion, without danger. The following practice is adopted to determine what constitutes a cure. When it is supposed to be affected, a careful search is made of the scalp. If no short diseased hairs can be detected, the case is kept waiting about a month, during which little if any treatment is adopted. Then, if no signs are present, the cases are admitted as cured. Decayed teeth are found in 90 per cent. of cases and about 10 per cent. of the children suffered from enlarged tonsils and adenoids. After removal of enlarged tonsils and adenoids a systematic and prolonged course of breathing exercises should be insisted on. In 87 per cent. of the children the cervical glands were palpable and 13 per cent. had defective vision. Fifteen in 4000 children have been found to be mentally deficient. These children should not be taught in ordinary schools, but they should be collected in a special class and instructed by a specially selected and experienced teacher. Very little tuberculosis was found, and pulmonary tuberculosis was practically non-existent.

J. ALLAN.

Physical training in schools for children (*'Post-Grad.,'* August, 1910, p. 801).—**Ling Taylor** considers for cripples special schools are necessary under orthopædic supervision. They deal with those disabled by malformation, injury, paralysis, bone or joint disease, etc. Many are anæmic and undersized, or have lung, kidney, or other organic disease. This may be active or latent, or cured. These cases must be handled individually. They require special consideration in the matter of transportation, fresh air, nourishment, occupation, exercise, rest, etc. The first point to be settled is whether such a child should go to school at all, or have hospital or other treatment. The next question is whether the cripple should go into a regular or special class; the latter should only be employed when absolutely necessary owing to active disease for which jackets or splints are used, causing walking or standing difficult. These should be supervised by a visiting nurse to supervise home treatment and to see that the physician is consulted at proper intervals. Gymnastics are rapidly being considered useless owing to their formal character, but the physical activities of each child should be regulated by the orthopædic surgeon in charge of the case.

J. PORTER PARKINSON.

School provision for physically defective children (*'School Hygiene,'* 1910, p. 322).—**R. C. Elmslie** discusses this question at considerable length. The duties of the school medical officer to physically defective children are: (1) The separation of children who are physically unfitted to attend the ordinary schools; (2) the supervision of children who show some defect of physique, whether they are in ordinary schools or are in special schools, to see that they are in no way harmed by the school routine of work or of play; (3) to advise the parents of such children when medical or surgical treatment is necessary; (4) the supervision of the instruction given to these children, which should be such as will fit them for an occupation suited to their physical defect. The following classification is given of children found in the schools for whom special arrangements have to be made: (i) Cripples with active disease; (ii) cripples with fixed deformity; (iii) phthisical children with active disease; (iv) phthisical children in the convalescent or quiet stage; (v) chronic invalids from such conditions as heart disease and chronic chorea; (vi) delicate nervous children; (vii) severe cases of malnutrition; (viii) children with combined

defects, *e. g.* crippled and mentally defective. First in importance among the crippled children come those with tuberculous disease of the spine, joints and bones. Three important points concerning tuberculous bone disease have a bearing upon the educational methods to be employed—the onset of the disease, the prolonged rest required, and the liability to recurrence. Rest and fixation of the diseased part are absolutely necessary and are best carried out in a resident hospital school. It has also to be remembered that children in this section and the other groups are in after-life less favourably situated than healthy children in the matter of earning their livelihood. Great care is therefore necessary to prescribe the most suitable instruction in each case. The following are the chief institutions for physically defective children: (1) Resident hospital schools; (2) resident sanatorium schools; (3) country recovery schools; (4) non-resident invalid day-schools; (5) non-resident open-air schools; (6) resident trade schools; (7) non-resident trade schools.

J. ALLAN.

Scoliosis among school children (*St. Petersburg. med. Woch.*, May 15, 1910, p. 281).—**Brennsohn** maintains that insufficient attention is paid by practitioners to this deformity; scoliosis never gets better of itself. Even the milder forms do much havoc in later years, to say nothing of the ugliness of the deformity. After briefly mentioning the usual hygienic precautions to be taken in school he concludes that there should be daily gymnastic exercise of half an hour for all children, but every case of scoliosis should be sent to an orthopædic institute for treatment; remedial measures should not be undertaken at school.

M. D. EDER.

The care of the teeth during school life (*School Hygiene*, 1910, p. 682).—**R. D. Pedley** emphasises the great importance of dental hygiene during school life. After referring to some points regarding the development of the teeth, he points out several conditions which are responsible for the poor teeth of the present generation. He strongly urges the view that the food taken constitutes an important factor in this connection. The practice of giving soft food fails to afford the exercise necessary for the growth of healthy teeth. Dental caries is the disease by which most teeth are destroyed. Preventive measures are important which are more than simple oral cleanliness. Not only should school medical officers and teachers be trained, but every medical student should have an elementary knowledge of dental disease. The children should be instructed by diagrams and object-lessons how valuable teeth are in the economy of the body. In every large school basins should be provided with water-taps over them and unbreakable cups, a tooth-brush for every child with its number, racks where they may be placed with the names and numbers on. The "tooth-brush drill" will then be a reality instead of a farce, and this wholesome recreation will save much money in the future. Dentists should be appointed to treat existing disease. This is not only as a method of prevention, but is absolutely essential for the welfare of the children.

J. ALLAN.

The feeding of school-children (*The Dietetic and Hygienic Gazette*, September, 1910; *abstr. Medical Rev. of Rev.*, 1910, p. 606).—**L. S. Bryant** reviews the result of an inquiry regarding the value of feeding school-children by providing lunches at cost or at a nominal price. The paper is a preliminary communication, and deals with the question of school lunches as

worked out in different countries. The need for this work in New York is revealed by the fact that there are probably about 10 per cent. of cases of malnutrition of a type amenable to relief by means of these lunches in the public schools of the City. An interesting point in the investigation was the possible connection between mental effects and malnutrition. In over one thousand children in New York City who were in special classes for mental defectives, 60 per cent. were found to be under-nourished. Teachers of such special classes report an improvement in the "educability" of their pupils after regular feeding. In Europe school feeding has assumed an importance lifting it above the rank of a minor supplement to education. Begun as a relief measure, or as an aid to enforcing school attendance laws, it developed into a well-organised school function as its bearing on school progress became apparent. What has made school feeding a national issue, however, was the alarm felt over the physical deterioration of the English population, as reflected in the large number of recruits rejected upon physical examination. This movement for the conservation of the race has since then spread to Germany, Denmark, Italy, France, and other countries. The question of school lunches is coming to the fore-front in our large American cities, where the conditions of housing, occupation and feeding are operative in causing the physical deterioration of the tenement dweller.

J. ALLAN.

The feeding of necessitous school-children, the medical examination of school-children, and the incidence of infectious disease (*'The Medical Officer,'* 1911, p. 6).—J. King Warry points out that in the Borough of Hackney during the past year the number of cases of infectious disease, especially scarlet fever and diphtheria, has been below the average. This decrease he attributes to two circumstances: (1) The feeding of necessitous school-children; (2) the medical examination of school-children. The birth-rate in Hackney has kept fairly constant of late years, so that the number of persons at susceptible ages is probably much the same as before. By the feeding of necessitous school-children it is argued that their power of resistance will be increased, and that they will not be so liable to contract infectious disease. By the medical examination of school-children it is possible to detect those suffering from enlarged tonsils and adenoids or other unhealthy throat affections—conditions which the author believes predispose to such infectious diseases as diphtheria and scarlet fever.

J. ALLAN.

Lordotic albuminuria and school hygiene (*'Wien. klin. Wochens.,'* January 5, 1911; *Abstr. 'Journ. A.M.A.'*).—Piesen found that the children inclined to lordotic albuminuria developed it when they were obliged to sit with their arms crossed behind them—a frequent school attitude. Study of the subject in a large number showed that this attitude has a directly injurious influence on the kidney and is liable to induce albuminuria. The predisposition to lordotic albuminuria seems to be more pronounced the taller the child for its age. The facts observed confirm Lury's assumption that movability of the kidney is the decisive factor in lordotic albuminuria.

T. R. WHIPHAM.

Classification of lazy children (*'Lyon Méd.,'* 1910, cxv, No. 51, p. 1030).—E. Weigert, Medical Inspector of the Municipal Schools at

Lyons, contributes this paper, which is of value to those interested in school hygiene. He divides lazy children into three large categories: (1) Sub-normal children, amenable to the teacher. (2) Abnormal children, amenable to both teacher and doctor, *i. e.* idiots, imbeciles, backward children, unstable children, epileptics, hysterics, neurasthenics, and the vicious. (3) Diseased children, those intermittently lazy owing to (a) lesions of the nervous system; (b) lesions of the digestive system and faulty feeding; (c) lesions of the lymphatic system, glandular hypertrophy, and adenoid vegetations; (d) lesions of the organs of sense; (e) intoxications as alcohol, carbonic acid, and carbonic oxide; (f) incubation of infectious diseases and pretuberculosis; (g) chronic diseases, renal and cardiac.

VINCENT DICKINSON.

Child labour in factories (*Journ. Roy. Inst. Public Health*, 1910, p. 677).—**T. W. Heywood**, after discussing the legal enactments which relate to this matter, gives his personal experiences of the conditions prevalent in certain districts of Lancashire. He strongly supports the employment of "half timers," and he does not think that any benefit would accrue to the child or the community in the county of Lancashire by interfering with the present existing regulations. He finds that half-timers afford (relatively) fewer rejections than do full-timers, and that half-timers when they become full-timers do not exhibit signs of physical deterioration. The benefit derived is held to be due to the child being able to have additional and better nourishment. The author pleads for more elasticity with respect to the age for starting work, and he believes that there may be circumstances which justify the factory surgeon passing the child at the age of twelve.

J. ALLAN.

Treatment.

Artificial abscesses in young children (*Med. Press.*, 1911, 1, p. 16).—**Montagnon** has treated successfully with artificial abscesses twenty-six cases of severe broncho-pneumonia in infants ranging from the age of four months to five years. To obtain the best possible effects this method of treatment should not be employed at the outset of the malady. About the third or fourth day, if, in spite of mustard baths and inhalations of oxygen, the temperature remains high and dyspnoea is constant, injections of turpentine may be employed. In the case of infants under twelve months not more than one third of the contents of a Pravaz syringe should be used, and between that age and five years half a syringe should not be exceeded. The injection is made in the right or left hypochondrium three finger-breadths from the umbilicus. Inflammatory reaction commences on the following day, but is not defined until the end of forty-eight hours. About the sixth or seventh day pus is formed and the abscess should be opened. Injections of turpentine have not only a therapeutic action but also a diagnostic and prognostic signification. If suppuration is not produced the reason is to be found in an exhausted organism, and the same is the case when the temperature after two or three days has not fallen; in such a case the broncho-pneumonia is generally tuberculous.

T. R. WHIPHAM.

Tracheotomy and intubation in diphtheria before and after serum treatment (*Berlin. klin. Woch.*, 1910, p. 1313).—**H. Timmer**.—Since the employment of antitoxin at the Emma Children's Hospital in Amsterdam a relatively much smaller number of patients have required operation than

before. Thus from January 1, 1890, to October 24, 1894, of 1087 patients admitted 55 per cent. were tracheotomised or intubated, whereas out of 4220 admitted between October 24, 1894, and January 1, 1909, only 29 per cent. required operation. The mortality for intubation or tracheotomy in the first and second years of life was 90 and 70 per cent. respectively in the pre-antitoxin era, as compared with 64·9 per cent. and 40·6 per cent. since the employment of antitoxin. In the older children the fall in the mortality following these operations was still greater. The average mortality for all operated cases was 55·2 per cent. in the pre-antitoxin era, as compared with 26·8 per cent. since the introduction of antitoxin.

J. D. ROLLESTON.

The treatment of infantile dysentery by calomel and injections of silver nitrate (*La Clin. Infant.*, 1910, No. 19, p. 590).—**L. Revillet**, finding that the administration of ipecacuanha to young subjects gave rise sometimes to syncopal attacks, now prescribes enemata of nitrate of silver. For infants up to four or five years: Boiled distilled water 120–150 gr.; nitrate of silver ·05 to ·10 gr.; laudanum 1 to 4 drops. For children above this age: Boiled distilled water 150 to 250 gr.; nitrate of silver ·10 to ·15 gr.; laudanum 4 to 8 drops. The laudanum is used to render the silver salt better tolerated. The urgent symptoms begin to diminish after the first injection, but they should be continued once or twice every twenty-four hours for two or three days. The following night one dose of calomel is given, 0·15 gr. to 0·30 gr. according to age; this may need to be repeated after 48 or 72 hours. Diet consists of rice-water acidulated with lemon-juice, which has a marked anti-dysenteric action. For very young infants a little milk is added. Later, astringents, such as tannigen, bismuth, and rhatan, may be given.

VINCENT DICKINSON.

Agar-agar in the treatment of constipation in childhood (*Journ. Amer. Med. Assoc.*, 1910, II, p. 934).—**Morse** advocates the use of agar-agar for constipated children. It absorbs and retains moisture during its passage through the intestines, and thus increases the bulk of the fæces without the formation of hard masses. The difficulty is to induce children to take it: they will not take it dry or mixed with milk and sugar like a cereal. The best way is to cut it up into flakes about the size of bran and cook it in with the cereal, or it may be given in broth or soup provided it is thoroughly cooked (several hours' boiling is necessary) before it is added. It has almost no taste but a gelatinous feel in the mouth. The dosage is indefinite, but children of four to five years need as a rule about a drachm daily. A preparation of the substance compounded with cascara is on the market under the name of "Regulin."

T. R. WHIPHAM.

Hæmophilia treated by transfusion (*Med. Record*, 1910, II, p. 624).—**Milton Hahn** records a remarkably successful result in a case of hæmophilia in an infant aged 1 year. The mother, herself unaffected, was one of a markedly hæmophilic family. The child had accidentally knocked out a tooth and had bled continuously from the gum for a week. When first coming under treatment he was extremely anæmic. For three days various measures were tried—local compression, application of diphtheria antitoxin, administration of calcium lactate, injection of sterile gelatine—but the oozing continued. The child became unconscious, the pulse rapid and feeble and

the respirations deep and rapid, indicative of air-hunger. The hæmoglobin content of the blood had sunk to 11 per cent. and the child was regarded as certainly moribund. The patient's father had his radial artery anastomosed to the femoral vein of the child, and for fifteen minutes the blood was allowed to flow. The infant rapidly recovered consciousness. There was no further bleeding from the gum or from the operation wound. Five weeks later the child was discharged well, the blood being normal in composition. Its coagulation time, which had been from fifteen to eighteen minutes, was reduced to nine minutes.

REGINALD MILLER.

Epidural injections in the treatment of enuresis (*Ann. de Méd. et de Chir. Infant.*, March 1, 1910).—**Sisto** states that the epidural space is more favourable for the absorption of drugs than the subcutaneous or gastric route, owing to the number of veins in that region. He reports the case of a girl, aged 14 years, who was completely cured of life-long nocturnal enuresis by the epidural injection of less than 5 c.c. of physiological salt solution at the body temperature. There has been no recurrence during a period of over two years. The author recommends the method when all other measures have failed, but he has not found it invariably effectual. Zubizarreta had a favourable experience with twelve cases, and Bordot has recently cured five out of eleven children in this way.

T. R. WHIPHAM.

The therapeutic use of sea-water in infants (*Arch. of Pediat.*, 1910, xxvii, p. 593).—**R. M. Menick** describes the results of his experience in treating infants by subcutaneous injections of sea-water as advocated by Dr. Robert Simon, of Paris. The injections were used in twelve cases of bronchopneumonia in which the children were dangerously ill. Only three recovered, and in these the sea-water seemed to relieve the dyspnoea. In sixteen cases of congenital debility and in nineteen cases of gastro-enteritis in which this method of treatment was employed the results obtained were not in accordance with those of Dr. Robert Simon. The subcutaneous use of saline fluid has long been recognised as of great benefit, especially when there is any disturbance of the circulatory system, as in shock or in the disturbances of the vasomotor centres in infectious fevers. In such conditions normal salt solution acts as a stimulant, and it is precisely this action which the injections of sea-water sometimes produces. The results obtained by other observers appear to be similar.

JAMES E. H. SAWYER (Birmingham).

Vaccine treatment (*Indian Med. Gaz.*, 1910, p. 301).—**Maj. T. H. Delany, I.M.S.**, reports, for the benefit of those who have no laboratory at hand, the method he adopted to prepare a vaccine in a case of sepsis under his charge. A Hindu child, aged 7 years, fell from a tree and sustained a compound fracture of the left humerus. As the result of tight bandaging by a native, gangrene set in, and amputation became necessary. The wound suppurated and the boy began to lose ground steadily. Fourteen days after the operation there was retention of urine and pain over the bladder. On examination a swelling was noticed in the pelvis and upper part of the left thigh close to the symphysis; two days later the urine contained pus. Next day the swelling was incised and a large abscess found containing pieces of necrosed bone. On removal this bone proved to be almost the entire pubis and a great part of the ischium. In all probability the bone had been fractured at the time of the fall. The pus from the two wounds had the same appearance and a similar smell. The emaciation advanced. A vaccine

was prepared by inoculating an agar plate with pus from the arm; a subculture was then made on an agar slope and incubated at 37° C. for twenty-four hours; this in turn was washed off by sterile saline and carbolic acid was added to 5 per cent., and the whole was then subjected to a temperature of 60° C. for half an hour. Two minims of this vaccine were injected, but the reaction which followed showed that the dose was too large. Six days later half a minim was injected, and the temperature, which was previously about 103° F., fell to 99° F. and remained steady. Six days later the dose was repeated and the temperature afterwards remained normal. After five inoculations at six-day intervals the patient left the hospital cured.

DUNCAN C. L. FITZWILLIAMS.

Reviews.

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A NEW and valuable periodical entitled 'Encyclopédie Médicale' has just been published. Its object is to supply a monthly bibliography of current literature from medical journals. The first number contains forty-six pages, but we have been able to find only four references to English publications, an omission which might be rectified with advantage in future numbers.

F. R. B. A.

LE RACHITISME ET SA PATHOGÉNIE. By Prof. A. B. MARFAN, Médecin de l'hôpital des Enfants Malades. 1 vol. in-18 de 93 pages. Paris: J. B. Baillière et fils, 19, rue Hautefeuille. Boards. Price 1-50 fr.

PROFESSOR MARFAN does not accept any of the six hypotheses, which he quotes as having been put forward to explain the ætiology of rickets. In his monograph, which appears as one of the "Actualités Médicales," he elaborates a new hypothesis, which, though revolutionary, will demand due consideration on account of the author's eminence. Rickets, according to his view, is not a special disease, but a syndrome due to various chronic infections and intoxications during the later months of intra-uterine life and the first two years of independent existence. The skeletal changes in rickets represent the reactions of the bone-marrow and cartilages in early life to chronic infections and intoxications. In every case of rickets there should therefore be a focus of infection or intoxication, and a diagnosis of "rickets" is insufficient and comparable to one of "enlarged glands" or "splenomegaly." In every case a diligent search must be made for some underlying cause, such as elementary intoxication, syphilis, tuberculosis, prolonged broncho-pneumonia, chronic suppuration of the skin, and so forth. The connection of this somewhat startling conception is the most important part of the work, which, in addition, contains a full description of the disease, interesting remarks on congenital and late rickets, and a brief outline of the treatment.

H. D. R.

ALLERGIE. By Dr. CLEMENS FRH. VON PIRQUET, Professor of Pædiatrics at Breslau University. Pp. 96. 30 illustrations. Berlin: Julius Springer, 1910. Price 3-60 m.

THIS work, which summarises the author's numerous monographs, is a concise review of present-day knowledge on the subject with which it deals.

The term *allergy*, or modified reaction, was proposed by von Pirquet in 1906 to denote the alteration in the response of the animal organism to antibody-producing substances, induced by repetition of the original infecting dose. The expression is free from teleological bias, and it is pure Greek. It is thus preferable on the one hand to *anaphylaxis*, and on the other to *hyperimmunisation*.

After a brief historical retrospect the author discusses the signs of *allergy* as shown in the *serum disease*. The relations of the immediate and accelerated reactions are fully considered.

The author's views on allergy in reinoculation with *vaccinia* are of special interest. There is, according to von Pirquet, no immunity to revaccination to the extent of complete absence of response; and undoubtedly most revaccinations recorded as negative are allergic in von Pirquet's sense. The protective value of allergic revaccinations against smallpox is scarcely touched on here. It offers a field for very useful inquiry.

The various well-known *tuberculin* reactions and the *mallein* test for glanders are plainly set forth as allergic phenomena. The suggestion that the renal complications of *scarlet fever* are allergic is also noted.

The work concludes with an exposition, which is aptly illustrated by diagrams, of the *theory* of allergy in its relation to diphtheria, the serum disease in men and animals respectively, revaccination, tuberculosis interrupted and intensified by measles, diagnostic tuberculinisation, and other conditions. Nothing could be more lucid than this theoretical section. It clears up many clinical difficulties.

The *bibliography* is comprehensive: the references number 272.

J. R. C.

ON SCARLET FEVER (THE SECOND PART OF THE DISEASE) (ÜBER SCHARLACH: DER SCHARLACHERKRANKUNG ZWEITER THEIL). By Dr. DIONYS POSPISCHILL and Dr. FRITZ WEISS. Berlin: S. Karger, 1911. Pp. 147. Price M. 5.

THIS work is based on observations extending over seven years made on 3605 children suffering from scarlet fever at the Wilhelmine Hospital in Vienna. The writers have applied the term "second illness" (zweiter Kranksein) to a syndrome arising between the second and sixth weeks of scarlet fever and consisting of the following principal symptoms: (1) Fever, (2) glandular enlargement, (3) throat affection, (4) nephritis, (5) scarlatinal heart.

The different varieties of temperature are illustrated in fourteen charts. Of the secondary throat affections, bulging of the soft palate, usually unilateral, is regarded as the earliest and most constant phenomenon. In the section on glandular swellings, after a description of cervical and submaxillary adenitis allusion is made to occasional involvement of the axillary, inguinal, and portal glands. The authors think that portal adenitis, the existence of which they have often verified post mortem, may sometimes account for the jaundice

which is met with in the "second illness." The different clinical varieties of nephritis are discussed, and an account is given of an interesting experiment, which proves that scarlatinal nephritis is not dependent upon the character of the diet, since it was almost as frequent among 1186 patients fed on milk, in whom it occurred in 9·78 per cent., as in an equal number given a meat diet, in whom it occurred in 9·95 per cent. In the writers' opinion scarlet fever is never the cause of chronic heart disease. According to them inflammation of the valves is a metastatic phenomenon occurring only in septic and pyæmic cases, which invariably end fatally. "Scarlatinal endocarditis is a phantom."

Several pages are devoted to the discussion of relapses, of which four varieties are described, and also to return cases, which occurred in 3·15 per cent. In the chapter on treatment anti-streptococcic serum is declared to be a failure. For mastoid abscess a single incision is recommended, and a radical operation is considered inadvisable.

This work is a valuable contribution to the clinical study of scarlet fever, and can be cordially recommended to those who are not likely to be repelled by a florid style and an ultra-Germanic involvement of the sentences.

J. D. R.

Obituary.

THEODOR ESCHERICH.

WE regret to announce the death of Theodor Escherich, Professor of Pædiatrics at Vienna, on February the 15th, 1911, in his fifty-fourth year. He united in a remarkable degree the qualities of pathologist, clinician, teacher, and organiser. He was an extremely prolific writer, but is best known by his work on the intestinal flora of infants, on tetany, tuberculosis, diphtheria, and infection of the urinary passages of children by *B. coli*, sometimes known as Escherich's bacillus. Since 1888 he had been on the editorial staff of the 'Jahrbuch für Kinderheilkunde.' His ability for organisation was shown by his modernisation of the St. Anne Children's Hospital at Vienna and by the establishment of a new clinique for the study of children's diseases. He also founded a school for children's nurses and a society for the protection of infant life. For some years he had shown signs of arterio-sclerosis, and his premature death was due to apoplexy.

GIUSEPPE MYA.

GIUSEPPE MYA, President of the Italian Pædiatric Society, died at Florence on February the 6th, 1911, in his fifty-fourth year. Since 1900 he had been Professor of Clinical Pædiatrics at Florence and Director of the Institute for Children's Diseases. In 1903, in conjunction with Concetti, he founded the 'Rivista di Clinica Pediatrica.' He was also on the editorial staff of the 'Clinica medica Italiana' and the 'Monatsschrift für Kinderheilkunde.' He was the author of numerous papers on children's diseases, such as megacolon congenitum, infantile splenic anæmia, influenzal meningitis, and diphtheria.